Clinical Lectures
ON
CASES OF DIFFICULT DIAGNOSIS.

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LECTURE VIII.

TUBERCULAR PERITONITIS IN THE ADULT.

GENTLEMEN,—You will perhaps feel surprised that I should include the disease to which I wish to-day to draw your attention—viz., tubercular peritonitis—amongst those that can be said to be difficult of diagnosis. It is true that in the form you so often see in the children's wards the nature of the complaint can be scarcely overlooked. The old-looking, shrunken features of the child, the tumid abdomen, contrasting so strongly with the wasted limbs, at once direct your attention to the seat of the mischief; whilst the history of frequent attacks of pain, the tenderness on pressure, the obstinate diarrhœa, lead you so certainly to a conclusion as to the nature of the complaint that you feel it scarcely necessary to verify your diagnosis by a more careful examination of the affected part.

But in the case of adults you often encounter difficulties that require all your skill and tact to overcome, and not infrequently it is necessary to rest your diagnosis rather upon the state of other organs than on that of the peritoneum itself. In some the symptoms point only to a general febrile condition, and the ordinary indications of peritoneal inflammation are absent, or are masked by others of a more prominent character. So much may this be the case that no suspicion as to the true nature of the disease may cross the mind of the practitioner until it is revealed by the post-mortem examination. Even in the more chronic forms well-marked local manifestations may be for a long time absent, and you may be led to direct your treatment to organs which are only secondarily affected, or the symptoms of the abdominal affection may entirely disappear or be replaced by others, so that you are left in doubt whether your first diagnosis had not been incorrect. Such being the case, the records of the disease in our clinical and post-mortem books can, I think, scarcely fail to supply us with some materials for profitable consideration.

Tubercular disease may affect the peritoneum under two forms. In one the tubercles are scattered over the serous membrane without coexisting peritonitis, and consequently no abdominal symptoms present themselves during the life of the patient. It is, in fact, only a local expression of a general condition; it cannot be diagnosed during life, requires no special treatment, and has consequently no clinical importance. But when the tubercles are associated with inflammation the prominent signs during life are those of peritonitis; and the chief changes discovered by post-mortem examination are those arising from inflammation of the serous membrane. It is to this form of tubercular affection of the peritoneum that I propose in the present instance to direct your attention.

I find, then, in our post-mortem records forty-two cases of peritonitis attended with tubercles in persons above fourteen years of age; and, in addition to these, five others in which, although the presence of tubercles is not expressly mentioned, the descriptions given render it almost certain that the peritonitis was of this character. I propose to analyse these forty-seven cases and lay the results before you.

As we shall afterwards find that the physical signs of the disease are of the greatest importance in diagnosis, it will be necessary for us first to ascertain the condition in which the abdominal viscera are generally found after death, and whether other organs besides those covered by the peritoneum are also affected. In the discussion of these points I will restrict myself to the cases recorded in the post-mortem registers of the hospital; and you must bear in mind that in most instances the chief morbid changes are the result of the inflammation of the serous membrane, and have no necessary relation to the tubercles which have excited it.

As might have been expected in a complaint which often requires weeks or months to run its course, recently effused lymph is comparatively rarely met with; thus it was only found in eight cases out of the whole number, and in some of these it was evidently the result of a recent attack supervening upon a chronic condition, as it was associated with other changes that indicated a long continuance of the disorder. In most instances the lymph had become organised before the termination of life, and thus general adhesions of the abdominal viscera had been produced. This condition is mentioned as present in twenty-six out of the forty-seven cases; in most of these the intestines were so firmly agglutinated that they could not be separated without their coats being torn; but in a few instances the inflammation had been more recent, so that the parts could be disunited, although with difficulty. This general massing together of the viscera often affords a striking indication of the disease during life by the alteration it produces in the shape of the abdomen, and, as it has occurred in so large a proportion of the cases recorded, it should always be looked for in the later stages.

The peritoneum was thickened in twelve cases; in one it amounted to three-quarters of an inch, and in another to one inch in thickness. A cheesy formation was found in three instances between the adherent coils, probably produced by the degeneration of masses of tubercle; and in one there was extensive caseation of the abdominal parietes a little above the umbilicus; in only one the caseated material had become cretaceous. I need not point out the importance of this thickening of the serous membrane as regards diagnosis, as it must alter the percussion note in that part of the abdomen in which it is situated, and may lead to an erroneous impression as to the existence of a tumour.

The usual condition producing a tumour was thickening of the omentum, this part being consolidated into a mass by lymph and tubercle. In eight cases out of the forty-seven it is recorded as having been "greatly thickened with lymph and tubercle," or "rolled up," or "puckered up," so as to form a considerable tumour, which was either stretched like a band from one hypochondrium to the other, or was situated in the umbilical region. Next in frequency to the omentum the capsule of the liver was thickened; in one instance it is recorded as having been "as hard as cartilage and greatly thickened." The neighbourhood of the spleen was also in some instances the seat of a tumour; in one it was a pound in weight, was composed of lymph and tubercle, and enclosed the organ on all sides. The mesentery was frequently found to be thickened, and by its contraction had dragged together the intestines, which were united firmly by adhesions. When, as is often the case, there is also a collection of fluid, the abdomen may be so altered in appearance as to lead to great difficulty in diagnosis. The mesenteric glands were rarely enlarged to such a size as to present the appearance of an abdominal tumour. In the tubercular peritonitis of adults, therefore, the chief conditions producing a tumour are either a thickened omentum, lymph situated around the spleen, or an alteration in the shape of the abdomen produced by a collection of fluid walled in by lymph or by the neighbouring viscera united together by adhesions.

The effect of a general adhesion of the intestines is in most cases to constrict their calibre, or in some other way to impair their functional activity. In one case the bending and consequent constriction of the loops of the small intestine is especially noted; in another the lower part of the ileum is said to have been rendered almost impervious; in a third the colon was "greatly constricted"; whilst in another the whole of the large intestine was found to be dilated from the cæcum to the sigmoid flexure, the former part being enormously enlarged. These results are not matters of mere pathological interest; they must be borne in mind if you would understand many of the symptoms that present themselves in the later stages of the more chronic forms of the malady.

In all probability fluid is effused into the peritoneal cavity at some period in every case, but it is usually absorbed before the termination of the illness. Nevertheless, in thirteen out of the whole number there was sufficient serum in the peritoneal cavity to induce the pathologist to describe it as "ascites." The fluid was in some instances confined in spaces surrounded by lymph. It is usually stated to have been serum, but in two cases it is mentioned as "bloody." In one of these there was a thickened omentum, and in the other the peritoneal cavity was full of recently

effused blood, although the vessels from which it had escaped could not be discovered. Authors generally, I think, exaggerate the frequency with which bloody serum is found in tubercular peritonitis; for, according to my experience, this condition is rare as compared with cancer of the peritoneum. In only three instances the fluid is said to have been purulent; and this is worthy of remark, as we so frequently meet with suppuration in tubercular peritonitis in children. This infrequency in the present series may have partly arisen from the fact that I have included only cases in which the peritoneum seemed to have been primarily affected; for most of those attended by suppuration are secondary to tubercular ulceration of the intestines or of the female genital organs.

It is a matter of interest to determine why the serum remains unabsorbed in some cases whilst it is absorbed in others. Now, of the thirteen cases I have just quoted, the amount of effusion is noticed as moderate in two and excessive in eleven. In four of these there is no mention of the coexistence of general adhesions, but in the remainder the viscera are described as closely united together. In five the peritoneum was greatly thickened; and in one, although general thickening is not mentioned, there was a mass of lymph surrounding the spleen. In all the others, where there was no thickening there was cirrhosis of the liver. I think, then, we may conclude that the circumstances that give rise to ascites are either a thickened condition of the peritoneum, preventing the contact of the exudation with a well-developed vascular surface, or a cirrhotic condition of the liver that favours the continued exudation of fluid.

The condition of the lungs in those affected with tubercular peritonitis is especially important, as we often meet with practitioners who refuse to acknowledge a case of peritonitis to be of tubercular origin, unless there are well-marked evidences of pulmonary disease. Dr. Bristowe says that in forty-eight of the cases he analysed there were tubercles in the lungs in forty-two, and Dr. Hilton Fagge states the proportion to be seven out of nine. Now, in thirty-eight of our cases the condition of the lungs is expressly mentioned, and in five of them no trace of disease could be discovered. One of the five had died of acute pneumonia; there were general adhesions of the abdominal viscera and old cretaceous deposits, proving the previous existence of tubercular peritonitis, and yet no tubercles had been developed in the pulmonary organs. In two more of the thirty-eight only a few scattered tubercles existed in the lungs. Cavities are mentioned in only nine, and of these five were instances of "fibroid phthisis." As in the remaining cases there were only "scattered tubercles" or "tubercular consolidation," we may conclude that it is comparatively rare for the peritoneal mischief to be developed in persons suffering from chronic phthisis, and that therefore the serous membrane is generally affected before the onset of the pulmonary disease.

Dr. Bristowe states that there was tubercular disease of the pleuræ in twenty-five out of forty-eight cases, and other authors have stated the concurrence of disease in these two serous membranes as still more frequent. In twenty of our cases the state of the pleuræ is expressly mentioned; ten of these presented evidence of acute pleurisy, in three there were tubercles in the pleuræ without coexisting inflammation, in six there were general adhesions, and in one there was considerable thickening of the serous membrane. In all probability, then, some affection of the pleuræ will present itself in more than one-half of the whole number of cases, but this is a proportion much less than I should have guessed had I judged from the frequency with which this coexistence is observed during the patient's life.

When we consider how generally ulceration of the intestines is present in persons affected with phthisis, we might expect that a similar condition would be commonly met with in those who had died of tubercular peritonitis. Such, however, does not appear to be the case, for frequent mention is made in the records that there was no ulceration of the intestinal mucous membrane, and it is only noted in eight of the whole number, six presenting ulcerations in the ileum, one in the cæcum, and one in the cæcum, colon, and appendix. Ulceration of the mucous membrane seems to be more apt to be developed in cases of fibroid phthisis, for four out of five of those affected with this form of pulmonary disease presented it, whilst it was observed in only one out of seven where the lungs contained tubercles without fibroid change. I think it is most probable that the ulcerations in the fibroid cases preceded the development of the tubercles in the serous membrane, and also that inflammation of the outer surface of the intestines has a tendency to present the occurrence of tubercular growth on the mucous surfaces.

In twenty-two cases the condition of the liver is mentioned; in one it is said to have been "cheesy," in one it was large, in one it contained tubercles, in three it was fatty, and in nine it was in a state of cirrhosis. This concurrence of tubercular peritonitis in the adult with cirrhosis of the liver has attracted a good deal of attention abroad, although it is but rarely mentioned in English works. Seipert found ten cases of cirrhosis in sixty-eight of tubercular peritonitis, seven were observed in Leipsic out of fifty cases, and Wagner mentions ten that had come under his own observation. If we add to these numbers those in our records, we have twenty cases of cirrhosis in one hundred and sixty-five of tubercular peritonitis, or one in every eight.

It has been suggested by some writers that the hepatic change in these cases is the result of the peritoneal inflammation, whilst others have looked upon the cirrhosis as giving rise to the affection of the serous membrane, by the congestion of the portal system it produces. It has, however, been overlooked that the same abuse of alcohol that tends to produce cirrhosis predisposes also to tubercular disease. Thus I find one hundred and forty cases of cirrhosis recorded during the same period as that during which I have searched for those of tubercular peritonitis, and as there were only nine in which the disease of the liver was associated with this latter disorder, only one case of cirrhosis in every fifteen is affected with the peritoneal affection. Now, excluding these nine, lest it should be said that the tubercular affection of the peritoneum had given rise to that of the lungs, I find seventeen of the one hundred and thirty-one remaining cases of cirrhosis presented tubercular mischief in the lungs, or one in every seven, whilst five others had a "fibroid" affection of the same organs. It is plain, then, that the same habit of intemperance that gives rise to cirrhosis tends also to the production of tuberculosis, but as tubercular peritonitis in the adult is very rare as compared with phthisis, we must regard cirrhosis as tending to the development of the disease in the peritoneum. This becomes more evident if we analyse the cases according to the ages at which they occurred. Thus one in every three of those affected with cirrhosis that died between twenty and thirty years of age presented tubercular peritonitis, the proportion rose to one in ten in those between thirty and forty, and was only one in every thirty-nine of those above forty years of age. When we look at the cases of cirrhosis combined with tubercular affection of the lungs, the proportion is very different. One in six occurred between twenty and thirty, one in five between thirty and forty, and one in every eleven above forty years of age. But if we look upon the fibroid cases as also of a tubercular nature, then the proportion of cases presenting lung disease in the cases of cirrhosis above forty years of age was also one in six. The probable explanation, I suspect, of the occurrence of tubercular peritonitis in young persons suffering from cirrhosis is that inflammation of the serous membrane is more apt to be set up in those affected at an early age, and thus tends to the development of the tubercle in this situation rather than in the pulmonary structures. That the disease of the liver generally precedes that of the peritoneum is evident from the fact that in all the cases except one there was a history of intemperance, and in every case the symptoms of hepatic disease had preceded those of the peritonitis.

In sixteen of the cases of tubercular peritonitis the condition of the spleen is recorded, and in all the organ or its capsule was in an abnormal condition. In three there was much thickening of the capsule, in seven the organ contained tubercles, in seven it was much enlarged, and in one it was the seat of numerous abscesses, probably arising from pyæmia. This enlargement of the spleen is not necessarily the result of any local action around it, for the organ is usually found to be increased in size in all acute cases of tubercular disease. It is difficult to account for the small number of cases in which tubercle was found in the spleen, for Dr. Bristowe mentions that tubercles were found in this organ in twenty of the forty-eight cases of tubercular peritonitis he had collected.

The kidneys are stated to have been diseased in seven cases out of the whole number; in five they contained tubercles, in one the kidneys were dilated, and in two they

were "granular." The bladder is only recorded as being affected in two instances; in one it was "ulcerated," in another "tubercular."

It is often stated that, in the female, tubercular affection of the peritoneum is usually the result of a similar disease of the uterine organs. There are sixteen females recorded as having died of this disease, and of these only five presented morbid changes in the uterus or its appendages; in three there was a tubercular condition of the ovaries, and in only one is disease of the Fallopian tubes mentioned. But, in contrast with these facts, Dr. Hilton Fagge states that in the cases of tubercular peritonitis in the female the Fallopian tubes are almost always affected. Dr. Bristowe says that out of forty-eight cases there was tubercle in four in the uterus and Fallopian tubes, whilst Dr. Moxon believed that the disease originated in the serous membrane and spread thence into the tubes. It is evident that, at the London and St. Thomas's Hospitals, either the condition of the uterine organ has been imperfectly recorded, or that the frequency with which the disease originates in the Fallopian tubes has been exaggerated by other observers.

In all probability the ordinary predisposing causes of tubercle tend to the production of the affection of the peritoneum; but in a number of cases, especially in those of an acute character, there is no history of any family predisposition to the complaint. Females seem to be less liable to it than the other sex, for of forty-six of our adult cases only sixteen were females. As regards age, the greatest liability was between fourteen and twenty; twelve cases having been recorded in this period; nine were between twenty and thirty; ten between thirty and forty; ten between forty and fifty; four between fifty and sixty; and none above that age. Amongst the females the largest number occurred between the age of fifteen and twenty, seven out of twelve being at this time of life; whilst there was only one between twenty and thirty, three between thirty and forty, and five above forty years of age.

In adults the symptoms and course of tubercular peritonitis greatly differ from what we are in the habit of observing in children. In the latter the disease usually runs a chronic course with a succession of acute or subacute attacks of peritonitis, there being often in the intervals a comparative freedom from any urgent symptoms; but in the adult it may present every variety, from sudden acute peritonitis to a slow and lingering malady, in which the manifestations of abdominal disease are either slight or are altogether wanting. It is this diversity in the symptoms and course of the malady that has led some writers to propose its division into several forms, each being described as presenting different features from the others. The objection to this is that, in practice, we constantly find cases that appear at first sight to belong to one group afterwards develop the symptoms of another, and it is this variation in the characters of the disease that constitutes one of the chief difficulties in its diagnosis. For instance, cases are described in our records that were acute up to a certain date, after which the urgent symptoms subsided; whilst in others a sudden development of acute peritonitis occurred in persons who had previously been suffering from a chronic form of the disease.

I think we shall get the best view of the malady if we divide the cases according as they are of an acute or chronic character; the former being characterised by a sudden onset, high fever, and well-marked pain and tenderness of the abdomen; whilst the latter come on gradually, have a lower temperature, less marked abdominal symptoms, and run a more chronic course. Bearing in mind that this division is to a certain extent artificial, and that the cases in each may change their character during the course of the disease, let us try to ascertain from the facts at our disposal the course, symptoms, and duration of the cases in each of these groups.

(To be continued.)

INFECTIOUS DISEASES IN CORK.—It is satisfactory to learn from the annual report of the Cork Fever Hospital that during the past year there were admitted fewer fever patients suffering from infectious diseases than for many previous years. There were only 148 cases admitted, which contrasts very favourably with the 600 or 800 which a few years since it was customary to receive. No doubt this, to a considerable extent, is due to the great improvement in sanitary matters which has been carried out under the direction of the Cork corporation.

Address
ON
LONDON, ANCIENT AND MODERN, FROM A MEDICAL POINT OF VIEW.

Delivered to the Medical Society of University College,

BY G. V. POORE, M.D., F.R.C.P.

(Continued from p. 369.)

IN considering the growth of medical knowledge in London, we should do very wrong to omit mentioning the Royal Society, in the establishment of which Charles II. seems to have taken a lively interest. The first informal meetings of those who afterwards formed the nucleus of this important Society were held at Wadham College, Oxford; and after the Restoration, at Gresham College, London. Among those mentioned by Chamberlayne as the founders are Robert Boyle, Sir W. Petty, the Bishop of Salisbury, the Dean of Wells, Dr. Wallis, Dr. Goddard, Dr. Willis, Sir Christopher Wren, Lord Brouncker, John Evelyn, Thomas Henshaw, Sir Geo. Ent, and Dr. Croone. The actual foundation of the Royal Society by charter from the king took place on April 22nd, 1663, and amongst the powers granted to the Society by their charter was that of taking and anatomising the dead bodies of persons put to death by order of law. Their recognised place of meeting was Gresham College, but after the fire they met for a time at Arundel House. "In their discoursings," we are told, "they lay aside all set speeches, and eloquent harangues (as fit to be banished out of all civil assemblies, as a thing found by woeful experience, especially in England, fatal to peace and good manners), and everyone endeavours to express his opinion or desire in the plainest and most concise manner." Even at the present day there are not wanting those who sneer at the "ologies," and it is therefore not surprising that in 1682 it should have been necessary to meet criticism by putting forward a defence of this Society. "But what advantage and benefit," says Chamberlayne, "appears after so many meetings? It is true they have made many experiments of *Light* (as the excellent Lord Bacon calls them), and perhaps not so many experiments of fruit and profit; yet without doubt some may hereafter find out no small use and benefit even in those Luciferous experiments which now seem only curious and delightful; but it is also as true that the Royal Society hath made a great number of experiments and inventions very profitable and advantageous to mankind. They have mightily improved the naval, civil, and military architecture. They have advanced the art, conduct, and security of navigation. They have not only put this kingdom upon planting woods, groves, orchards, vineyards, evergreens, but also Ireland, Scotland, New England, Virginia, Jamaica, Barbadoes, all our plantations, begin to feel the influence of this Society." At Gresham College they had a library, the gift of the Duke of Norfolk, and a repository or museum, filled with natural curiosities.

This allusion to the Royal Society has brought to our notice Gresham College, the first home of the Society. (Fig. 4.) Pepys often alludes to "The College," meaning thereby the meetings of the Royal Society in Gresham College. This College, which ought to have been the nucleus of a university of London, was founded by Sir Thomas Gresham, who was born in 1519, and flourished in the reigns of Edward VI., Mary, and Elizabeth. He was himself a university man, having been at Caius College, Cambridge, and he amassed great wealth as a merchant and financier. He died in 1579, and by his will he left the bulk of his property to his widow, with the stipulation that at her death his house in Bishopsgate-street should be converted into a college, and that it should have for its endowment the rents arising from the shops in the Royal Exchange, which in Gresham's time amounted to £700 a year. The Corporation and the Mercers' Company were the trustees of this fund. There were seven endowed professorships—viz., astronomy, physic, law, geometry, divinity, rhetoric, and music. Gresham's house in Bishopsgate-street appears to have been

admirably adapted for a college. It was quadrangular, and had a garden and planted walks, so that the quiet and seclusion which are essential to study might have been obtained there. Be the cause what it may, the College which escaped the fire did not flourish. The Royal Society left it in 1710, and in 1768 Gresham house was pulled down to make way for an excise office, the Government granting £500 a year in exchange for the house and land. After this date the lectures were given in a room of the Royal Exchange, and in 1843 the present Gresham College was built at the corner of Basinghall-street, the house being outwardly not to be distinguished from the mercantile houses which abound in the city. The cause of the failure of Gresham College is doubtful. Dr. Johnson was of opinion that it was due to the fact that the students paid no fees, and therefore a powerful stimulus to the professors was wanting. The condition that the lectures were to be given in Latin as well as English, a condition reasonable enough in Gresham's time, has served as a clog; but probably the chief cause is to be found in the physical and moral atmosphere of the city. The corner of Basinghall-street is a very different place from those "groves of the Academy where Plato taught the truth." Here every creature you meet appears to be in a hurry—certainly in too great a hurry to get wisdom, which, says the son of Sirach, "cometh by opportunities of leisure."

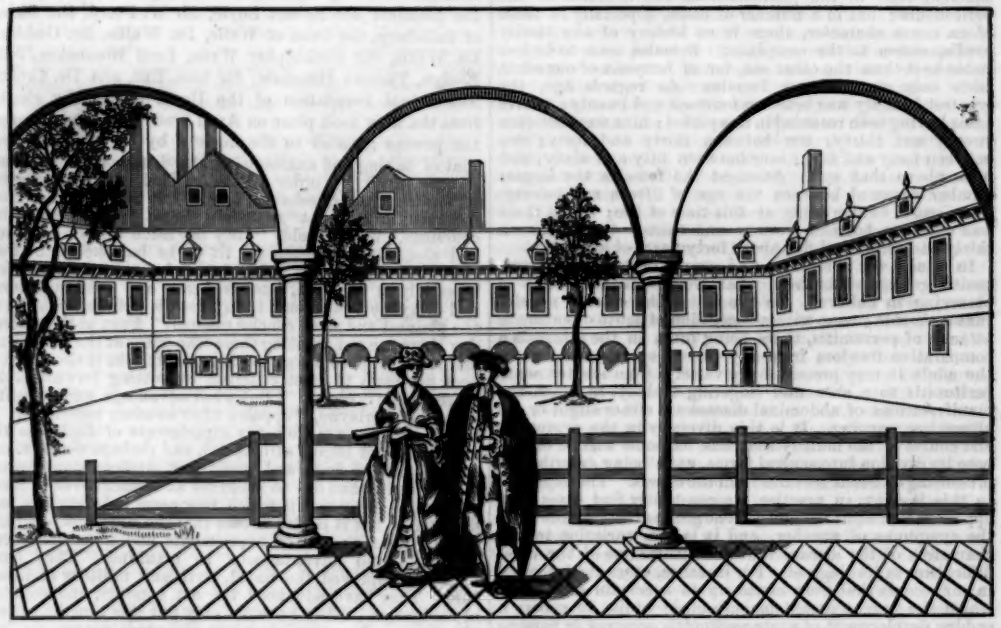
If universities, in the proper sense, have languished in London, the same cannot be said of learned societies. London, the great exchange and mart of the world, has assisted by its numerous and flourishing societies in the exchange of knowledge and ideas among learned men. The Medical Society of London was founded in 1773 in Bolt-court, Fleet-street. The Royal Medico-Chirurgical Society was founded in 1805. The other medical societies are all recent creations.

Thus it appears that the College of Physicians and the Company of Barbers and Surgeons, and also Gresham College, were the earliest schools of medicine in London, the only places where anything approaching to systematic instruction was given.

It was scarcely before the beginning of the eighteenth century that the hospitals of London began to be of any importance in the teaching of medicine. The earliest hospitals in London were leper hospitals, for at one time leprosy abounded in this city. St. James's Palace is built on the site of a hospital for "maidens that were leprous"; the name Spitalfields reminds us that at one time there was a "spittle" here for the lepers. There were other hospitals of a similar kind in Southwark and Kingsland. The next hospitals were mostly institutions founded by the religious houses, and were very much of the nature of almshouses, where the wretched, unfortunate, and diseased were received for a time. The two most important of these were St. Bartholomew's Hospital and St. Thomas's Hospital, and a few words as to their origin will not, I think, be uninteresting.

As regards St. Bartholomew's Hospital, Mr. Morrant Baker has written a most interesting monograph, entitled "The Two Foundations," to which I am indebted for much that I have to say under this head. This hospital owes its origin to Rahere, who is said to have been a minstrel jester at the court of Henry I. Concerning this pious founder, an aged chronicler (one of the monks of the Priory of St. Bartholomew) tells us: "Man born and sprung of low kynage, and when he attained the flower of youth he began to haunt the households of noblemen and the palaces of princes; where, under every elbow of them, he spread their cushions with japes and flatterings, delectably anointing their eyes, by this manner to draw to him their friendships. And still he was not content with this, but often haunted the king's palace (Henry I.), and, among the noiseful press of that tumultuous court, informed himself with polity and cardinal suavity, by the which he might draw to him the hearts of many a one." It does not seem at all likely that Rahere ever wore a cap and bells as a professional jester; but that he was rather a *persona grata* about the court, alike for his merry tongue and his handsome presence, concerning which his effigy in the church of St. Bartholomew the Great speaks clearly enough. This fashionable and giddy life seems to have told upon Rahere, and he ultimately turned serious, made a pilgrimage to Rome, fell ill there, saw visions, notably one of St. Bartholomew the Apostle, who commanded him to go home and build a church and asylum for the sick and weary in Smithfield. Rahere's persuasive powers were effectual in obtaining a site in the King's Market, Smithfield, and the foundation of the church and hospital took place in 1123. As to Smithfield, the monk's manuscript continues: "Right unclean it was; and, as a marsh, dungy and fenny,

FIG. 4.



Gresham College.

with water almost every time abounding; and that that was eminent above the water, dry, was deputed and ordained to the jubeit or gallows of thieves, and to the torment of other that were condemned by judicial authority." Rahere seems to have brought his histrionic talents to bear on his good work, for the chronicler records that by feigning idiocy he attracted the reverence of the superstitious, and "drew to him the fellowship of children and servants, assembling himself as one of them; and with their use and help, stones and other things profitable to the building lightly he gathered together." It is needless to say that many miracles were performed in the early days of the Priory and Hospital of St. Bartholomew. It was distinctly a monastic institution, and more resembled (as Mr. Baker suggests) the sick and lying-in ward of a modern workhouse than a hospital as we understand the term. Mr. Baker further suggests that the jousts and tournaments of Smithfield, as well as the horse and cattle fair which had been held there from time immemorial, may have provided the monks with not a few surgical casualties.

For the following facts concerning St. Thomas's Hospital I am indebted to a paper by Mr. Rendle, read in 1882 before the Royal Society of Literature:—

Those who have travelled from London-bridge to Cannon-street by the railway must have noticed the fine Church of St. Saviour's, Southwark. This church marks the site of the ancient Priory of St. Mary Overy, which was the original home of St. Thomas's Hospital. Southwark in ancient times was largely occupied by the clergy. Not far from the Priory of St. Mary was the Abbey of Bermondsey and the palatial residences of the Bishops of Winchester and Rochester. In 1207 the Priory of St. Mary was burnt down, and with it the Hospital of St. Mary. At Winchester House was living at that time Peter de Rupibus, Bishop of Winchester. This prelate decided to rebuild the hospital in a better form and on a better site, and accordingly set to work to obtain funds by means of the usual Charter of Indulgences addressed to the faithful in 1228. "Behold," says Bishop Peter, "at Southwark an ancient hospital, built of old to entertain the poor, has been entirely reduced to cinders and ashes by a lamentable fire; moreover, the place wherein the old hospital has been founded was less suitable, less appropriate for entertainment and habitation, both by reason of the straitness of the place and by reason of the lack of water and many other conveniences; according to the advice of us, and of wise men, it is transferred and transplanted to another more commodious site, where the air is more pure and calm, and the supply of water more plentiful. But whereas the building of the new hospital calls for many and manifold outlays, and cannot be crowned with its due consummation without the aid of the faithful, we request, advise, and earnestly exhort you all, and with a view to the remission of your sins enjoin you according to your abilities, from the goods bestowed on you by God, to stretch forth the hand of pity to the building of this new hospital, and out of your feelings of charity to receive the messengers of the same hospital coming to you for the needs of the poor to be therein entertained, that for these and other works of piety you shall do you may after the course of this life reap the reward of eternal felicity from him who is the recompenser of all good deeds and the loving and compassionate God. Now we, by the mercy of God, and trusting in the merits of the glorious Virgin Mary and the apostles Peter and Paul, and St. Thomas the Martyr and St. Swithin, to all the believers in Christ who shall look with the eye of piety on the gifts of their alms—that is to say, having confessed, contrite in heart and truly penitent—we remit to such twenty days of the penance enjoined on them, and grant it to them to share in the prayers and benefactions made in the church of Winchester and other churches erected by the grace of the Lord in the diocese of Winchester. Ever in the Lord. Farewell." The Prior of St. Mary Overy assisted in the good work, and several popes confirmed the acts of their subordinates, and thus St. Thomas's Hospital was founded on the site now occupied by part of the London-bridge Railway Station—a site which was its home from 1228 to 1862. In 1535 there were forty beds at St. Thomas's Hospital. In 1507 the hospital was enlarged and repaired, "the void ground," called the "Faucon," and afterwards the "Tenys-place" and "Clossbane" (probably connected with the game of skittles), was acquired, and the following was the bill: "Paid to Mr. Scott of Kent, and Ann, his wife, for the land forty marks, and for a gown cloth of damask for the said Ann £3 16*s.* 8*d.*—in all £31 13*s.* 4*d.*" When this land, or very nearly the same, was sold to the South-Eastern Railway Company in 1862 it fetched £296,000. The total cost of land and buildings erected in 1507, with the legal expenses, was £311 6*s.* 1½*d.* About the year 1527, James Nycolson, of "St. Thomas's Spyttell in Southwark," had a printing press within the precincts of the hospital, and among other notable books produced the bible known as "Nycolson's Coverdale."

When the religious houses were suppressed by Henry VIII., these hospitals and asylums, which were part and parcel of them, were suppressed also, and for a time the poor found themselves deprived of much assistance to which they had become accustomed. It was therefore found necessary to re-establish these institutions on a new footing. This was done by Henry VIII. and Edward VI., and when we speak of these monarchs as founders we must remember that they refounded in a better form that which Henry had previously destroyed. St. Bartholomew's was refounded in 1548, and St. Thomas's in 1553; and in 1557 the four Royal hospitals—St. Bartholomew's, St. Thomas's, Christ's Hospital, and Bridewell—were, in a sense, incorporated together for purposes of management. Dr. Payne has kindly permitted me to inspect a little book bearing the date 1557, and entitled "The Order of the Hospitalls of K. Henry the viii.th and K. Edward the vi.th—viz., St. Bartholomew's, Christ's, Bridewell, St. Thomas's. By the Mayor, Cominaltie, and Citizens of London, Governours of the Possessions, Revenues and Goods of the sayd Hospitals." From this it appears that "one Hospital, called St. Bartholomew's the little," was founded by King Henry VIII., and the other three by his successor. The governors were to be sixty-six at least (fourteen aldermen and fifty-two grave commoners), whereof four were to be scriveners, "to the intent that in every house may be one or more." Two of the aldermen were "governors-general," one to be called controller and the other surveyor, while the remaining sixty-four were divided equally among the four hospitals (three aldermen and thirteen commoners to each, whereof one was to be their treasurer). The governors were appointed at a general court held on St. Matthew's Day (Sept. 21st), and held office for two years from Michaelmas Day (Sept. 29th). On appointment a solemn charge was read to them, in which the objects of the four hospitals are thus set forth: "Idelnes, the enemie of all vertue, is suppressed and banished; the tender youth of the nedy and idle beggars vertuously brought up; the number of sick, sore, and miserable people refreshed, harbored, and cured of their maladies; and the vile and sturdy strumpet compelled to labour and travaile in profitable exercises." The latter paragraph refers especially to Bridewell, which was originally established as a house of correction "for the strumpet and idle person, for the rioter that consumeth all, and for the vagabond that will abide in no place." Bridewell has been rendered immortal by Hogarth's fourth plate of the "Harlot's Progress," but as an institution it disappeared in 1863. Among the officers of the Royal Hospitals were "scruteners," who performed the duties of "collectors" of legacies and other gifts. The charge to these officers concluded as follows: "And, finally, when you shall hapen to be in the companie of good, vertuous, and welthy men, you shall to the best and uttermost of your wits and powers, advance, commend, and set forth the order of the said Hospital and the notable commodities that ensue to the whole realme of England, and chiefly to the citie of London, by erection of the same; and also how faithfully and truly the goods geven to their uses are by the Governours thereof ministered and bestowed." They were also enjoined to exhort scriveners to remind testators of the hospital when making their wills, and to provide the said scriveners with prospectuses for their information. They were further enjoined to exhort the bishop and clergy, and especially the preachers at "Pawles Crosse": "That they twise or thrise in the quarter at the leaste, do move and exhort the people to further the said work." The officers attached to each hospital were "the clerke, the matron, the nurses and keepers of wards, the steward, the officer appointed to warne the collectors and church wardens, the cooke, the butler, the porter, the shomaker, the chirurgian, the barbour, the bedles." Another institution having a similar origin to the Royal Hospitals is Bethlehem Hospital, or Bedlam. This was founded by Henry VIII., on the site of the suppressed Priory of our Lady of

Bethlehem. At the end of the seventeenth century it was moved to a new building in Moorfields, and finally, at the beginning of the present century it was established where it now is, in St. George's Fields, Southwark.

(To be concluded.)

AN INQUIRY INTO THE CAUSATION OF ASIATIC CHOLERA.

BY NEIL MACLEOD, M.D. EDIN.,
AND
WALTER J. MILLES, F.R.C.S. ENG.

WITH EXPERIMENTS ON ANIMALS BY NEIL MACLEOD, M.D.

THIS inquiry was commenced in the end of 1884. Most of the conclusions arrived at in the first three parts of this paper were published in the Health Officer's Report for 1885 to the Shanghai Municipal Council. Delay in finishing the report has been due to a variety of causes—amongst others, the daily work of a large practice, the heaviest part of which is in the middle and end of the hot season, the period chosen by cholera for its ravages in Shanghai. Before this investigation was begun, Koch had just published some of his results, and, as he was then almost the only worker in the bacteriological field of whom it could be said that he had not published anything subsequently upset, attention was therefore directed at once to the "comma bacillus." Powell and Lealand's half, quarter, eighth, oil twelfth inch [N. A. 1.43] and sub-stage condenser were employed for microscopic examination. For separating the organism and furnishing characters of identification, plate and tube cultivations in a slightly alkaline jelly, prepared with the usual proportions of meat infusion, salt, peptone, gelatine, and bicarbonate of soda, were used. In order to keep the jelly in the solid condition during hot weather, plates and tubes had to be kept in an ice-chest, the temperature of which was never allowed to go above 75° Fahrenheit, and usually maintained between 60° and 70°. This difficulty of dealing with gelatine cultivations when the temperature is never below 80°, and often over 90° both day and night, practically caused the loss of the first season. Agar-agar plates were then tried, and found useless for the purpose. Each investigator worked independently in a separate house, mostly with the same, but occasionally with different, material, so that the majority of the cases were investigated by both.

PART I.—The first step in ascertaining the relationship of an organism to a disease, is the determination of the characters of identification of that organism for purposes of future recognition. The fallacy of trusting to microscopic characters alone for this purpose has been well illustrated in the last five years' literature of Asiatic cholera. The axiom of bacteriological work for determining identity may be stated thus: the same organism grown under the same conditions as to medium, temperature, and time will have the same macroscopic, and if subjected to the same conditions as to staining, treatment in mounting, and examining, the same microscopic, characters. The characters of identification laid down by Koch for this organism are now accepted by all observers as sufficient, the name alone being altered. The "comma bacillus" is now regarded as a "spirillum." The characters are:—1. It occurs in the characteristic cholera stools. 2. It is from one-half to two-thirds the size of the tubercle bacillus, somewhat thicker than the latter, and slightly curved. Sometimes the rods combine to form a half circle, an S-shaped curve, or a wavy line of varying length. 3. It grows in, and liquefies, slightly alkaline gelatine; more slowly in neutral, scarcely at all in slightly, and not at all in markedly acid gelatine. On a gelatine plate cultivation the individual colonies are round, and lie in a funnel-shaped cavity; viewed by transmitted light and magnified, they look like ground glass, and the edge of the colony is finely notched. In a gelatine tube a funnel-shaped cavity forms at the top of the puncture made by the inoculating wire, and lying in this cavity what looks like an inverted air bubble with its top on a level with the surface of the jelly and open to the air; along the puncture the gelatine liquefies, and in this may be seen with the naked eye the whitish mass of colonies, more particularly at the lowest part; in from three to four weeks liquefaction spreads to the whole mass, the bacilli falling to the bottom as a greyish-white sediment having a faint orange tint in certain lights, and, if undisturbed, a perfectly transparent liquid separates a whitish scum on the top from the sediment below. 4. A freezing temperature does not destroy it. It grows scarcely at all below 50°, slowly at 60°, rapidly from 80° to 100° Fahrenheit in gelatine cultures. (For ordinary work these characters suffice for identification.) 5. It is actively mobile in fluid media. 6. Grown on Agar-agar cultivations, it has no characteristic appearance resembling many other organisms, and forms a brownish scum. 7. On potato slices at a temperature of from 90° to 100° F. it forms glistening greyish-brown colonies, but does not grow at all at ordinary room temperature. (On certain kinds of potato there may be no brown colouration.) 8. It liquefies blood-serum. 9. Growth ceases in the absence of air in gelatine cultivations. 10. Kept moist, it lives for months in pure tubes after growth has ceased; dried for a few hours, it dies. 11. It is reproduced by fission. Spores have not been observed.

Nearly all observers of this organism have described what are called involution forms. These are characterised by irregularities of shape, more particularly in their thickness, so that it requires reinoculation and growth under ordinary favourable conditions to determine that the specimens having these appearances are indeed pure cultivations of comma bacilli. Ceci and others have described certain spore-like appearances in involution forms, but these are now regarded as dying or dead parts of the rods, such parts staining very slightly or not at all. Hueppe has described what he regards as "lasting forms" and calls "arthrospores," as distinguished from "endospores." These he found in cultivations which were becoming exhausted of nutriment, and he examined only living and unstained specimens. If the drying test for spores is to be regarded as an absolute one, they are not spores. One of the authors of this inquiry found an appearance like that of endospore formation in actively growing neutral gelatine cultivations kept for three days at 70° F., clear, unstained, round or oval spots in stained bacilli, one in each rod, seen also in spirillum forms, and in slowly growing cultivations in involution forms. The appearance is that usually associated with the presence of spores, and hundreds are to be seen in a single field. After forty-eight hours' drying growth took place, but not after a longer interval. The nature of these spots has yet to be determined. For rapid examination of a fluid containing the organism, a thin film spread and dried on a cover glass can be stained by a watery solution of fuchsin in a few seconds, washed with water, and, while yet wet, explored with an oil immersion twelfth or objective of similar power.

PART II.—The second part of the investigation, the occurrence of the organism in relation to the disease, was tested in forty-four cases. Of these, thirty were fatal, but only six could be examined after death, a number being Chinamen, whose bodies may not be examined after death except under pains and penalties of a severe kind. In forty cases the comma bacillus was found; in one, examined by both observers, there were numerous comma bacilli on the cover-glass preparation of the stool, but not a single colony could be found in the plate cultivations, the stool having been mixed with carbolic acid when collected. The three other failures were with non-characteristic stools, and amongst the early cases investigated. With a few exceptions, one drop either of a typical stool, or of the contents of the ileum during the collapse stage, was sufficient to furnish demonstration of the organism by cultivation, whilst the exceptions disappeared on the examination of a second drop. From such a stool recently passed, colonies were almost always present on the third plate which could only have contained about the one, three, or four thousandth part of the original drop.

Later than the collapse stage, when the stool or bowel contents were no longer typical, but opaque, slimy, or fæcal, the organism was rarely found, and then with difficulty. Post-mortem examination alone is not sufficient to determine the absence of the organism from a given case, and must be supplemented by failure to find it in the typical stools during life. The conclusion arrived at by Drs. Roy, Brown, and Sherrington, that the organism is not present in every case of Asiatic cholera, appears to have been based on post-mortem examinations alone. All who have seen many cases of this disease will recall those

in which the collapse stage is followed by what is known as the tepid stage, when there may be little or no reaction, and the stools are no longer characteristic. Probably some of the cases examined by Roy, Brown, and Sherrington belonged to this class. Unless the cases were under their own observation during life, they could not be certain that they were dealing with those of the true collapse stage. The term "rice water" applied to stools does not give a true idea of the typical cholera stool. Rice water—that is, water in which rice has been boiled—is non-transparent, and has finely granular matter dispersed through it on being shaken up; while the typical cholera stool is almost transparent or slightly opalescent when seen in a glass vessel, having no odour or but a faint meaty smell, and contains white flakes consisting of masses of epithelium, but which are not in sufficient quantity to render the fluid opaque. In all non-typical stools several different organisms were found, which were conspicuously absent from the typical stool, affording, as it frequently did, almost a pure cultivation of the comma bacillus when submitted to the test of plate cultivation. The presence of the organism in the intestinal follicles, which have their interior communicating with the lumen of the bowel, might be naturally expected where the organism is in large numbers in the bowel contents. This expectation was fulfilled in such cases, and follicles were to be seen crammed full of epithelial débris and comma bacilli. The organism was also seen in the spaces formed by the separation of the epithelium in the follicles and the basal membrane, and occasionally in the tissues near the follicles. The penetration of the bacilli into the follicles and these sub-epithelial spaces was no doubt the result of their own activity, but their demonstration in the tissues beyond was not sufficiently satisfactory to exclude their introduction into that region as the result of manipulation in cutting, &c. The process of staining sections of intestinal tissue for the demonstrating of these organisms is not an easy one, and probably accounts for the failure to find them by so many observers. In specimens stained by Koch in Egypt, and very lately others stained by a new process of Kuehne's, the presence of the comma bacilli in the tissue of the intestinal wall cannot be doubted. Klein has arrived at the conclusion that, if they enter the tissue at all during life, it is only during the prolonged agony before death, but he does not advance sufficient proof for such a statement.

A sufficient number of necropsies were not made on which to base generalisations as to the appearance of the bowel, but the following notes of individual cases give a fair representation of what was met with. In a case where death took place ten hours from the apparent onset of the disease, and the post-mortem within half an hour of death, the small intestine was distended and externally was rose-red, the wall having a lax appearance as if paralysed, or as if it had been over-distended and had not recovered its contractile power. The contents were the clear fluid before referred to as "typical stool," the ileum being more particularly distended therewith. The mucous membrane was swollen, its epithelium stripped to a considerable extent, and the red spots marking the mouths of the follicles. On microscopic examination, many of these follicles were seen to be filled with broken-down epithelium, others with the epithelium detached from the underlying membrane, and the epithelium of the lumen of the bowel was absent in places. Comma bacilli were present in the follicles and subepithelial spaces. In a case of thirty hours' duration, examined six hours and a half after death, the small bowel presented a similar appearance to the foregoing, but was more deeply congested, there being hæmorrhages in the mucous membrane. Comma bacilli were present as in the last case. In a third case, thirty-two hours ill, examined two hours and a half after death, the ileum contained a thin, slightly blood-stained fluid, not in the least slimy or fæcal, there being intense congestion and swelling of the mucous lining, with much stripping of the epithelium. In a fourth case, where death took place on the fourth day, after very feeble reaction, and the stools had become slimy, dark brown, scanty, very offensive, and with a suspicion of a fæcal odour, the bowel contents were of the same character as the stools, but more manifestly blood-stained. Here stripping of the epithelium, ulceration, hæmorrhages, and everywhere great congestion, were the features in the small gut. The comma bacillus, which had been plentiful when the stools had been characteristic, were not to be seen in the follicles or the bowel contents, other organisms being abundant in the latter. Other organisms could be occasionally demonstrated in the intestinal wall, and in one instance a fine specimen of a fungus network deep in the tissues, probably a post-mortem intruder. The sections were stained in Koch's solution of methylene blue for twenty-four hours at the ordinary temperature of the room.

So far as the question of the presence of the organism in the tissue of the intestinal wall is concerned, it has to be remembered that is not an easy thing to demonstrate; and even supposing that the bacillus does not penetrate the tissue of the wall in every case, the relationship of the organism to the disease is not necessarily thereby materially influenced. Klein and Gibbes, in the Government report of their cholera work in India, state that in certain cases they found but few organisms, and advance this as one of their reasons for not regarding the comma bacillus as the cause of the disease. When it is remembered that the stools are usually numerous and copious, no calculation as to the number of organisms present in a given case can be of any value, when such estimate is based on the examination of a few drops taken from a large and unknown quantity of the material voided from or retained in the bowel.

PART III.—The third step of the investigation, the search for the comma bacillus in other than choleraic conditions of the human body, was carried out in six cases of diarrhœa, one of dysentery, specimens of saliva from four healthy subjects, scrapings from three diseased tonsils, one specimen of a healthy stool, material removed from the ileum of two cases of phthisis, two cases of malignant disease of the stomach, one case each of tubercular peritonitis and pneumonia, cerebellar disease, strangulated hernia, cardiac disease, tubercular meningitis, acute bronchitis, and empyema. In several of these, comma-shaped organisms were seen on microscopic examination, but never in any number, and in no single instance did cultivations on plates furnish such an organism. It has to be remembered that this material was subjected to the same process of examination as the cholera material, and also that there are few organisms more easily detected by plate cultivations than the comma bacillus. In a fluid containing comma bacilli alive, examination by plate cultivations will detect them when microscopic examination will fail to do so.

Other bacilli have been advanced from time to time as identical with the comma bacillus, but on closer acquaintance their claims have been set aside. Finkler and Prior's cholera nostras bacillus and Deneke's cheese bacillus are the only ones that have attracted attention, and it is not necessary at this time to give their characters under cultivation. The latest claims of this kind have been put forth by Klein in the following passage: "The bacilli which occur in the fluid of the mouth, and which are probably those observed by T. R. Lewis, *I think* I have in two instances out of many succeeded in cultivating, and they appear to me to be in their manner of growth in nutritive gelatine strikingly similar to the choleraic comma bacilli. Lastly, one of the two species observed in noma was found to grow in gelatine in the same manner as the choleraic comma bacilli."[1] (The italics are not in the original.) It is not quite plain from the context whether Klein claims that these organisms are the same as Koch's comma bacillus or that they are identical as to the characters mentioned by him; in any case, those given are not sufficient to prove identity where a suspicion of doubt exists.

It has been repeatedly suggested by critics that the comma bacillus is not the cause but the result of the disease. Now, either that organism is in the body before the disease occurs or it is not. If it is not in the body before the disease occurs, it must either enter the body each time that the cholera poison does so or originate spontaneously in the intestine in each case of cholera. Practically, therefore, this objection can only imply that the organism is already an inhabitant of the human bowel, but that it requires the choleraic process to demonstrate its presence there, since no one has yet succeeded in doing so apart from the disease. This is an objection without an atom of proof except the following experiment by Klein, and it is the only evidence advanced to prove that an analogous occurrence can be produced experimentally in animals. His own words are these: "That a pathological state of the intestine has a good deal to do with the multiplication of comma bacilli I have proved by direct experiment. In a monkey which had received the previous day a dose of castor oil, and had diarrhœa therefrom, the abdomen was opened under the spray, a loop of the lower ileum, just above the ileo-cæcal valve, and

[1] Pract., March, 1887, p. 182.

about from four to eight inches in length, was ligatured above and below, care being taken not to include in the ligatures the large vessels. With a Pravaz syringe a droplet of mucus was withdrawn from the interior of the loop, and on examination no comma bacilli could with certainty be discovered. With another syringe, about two cubic centimetres of a saturated solution of magnesium sulphate was injected, the loop replaced, and the wound stitched up and dressed antiseptically, the whole operation being done under the spray. Immediately afterwards the animal received subcutaneously one gramme of chloral hydrate dissolved in one or two cubic centimetres of distilled water. ..... Our animal was killed after forty-eight hours; on post-mortem examination the ligatured loop was found much injected, and its cavity filled with and distended by mucus, containing streaks of blood and numerous flakes. On microscopic examination, these flakes contained, besides amorphous mucus and detached epithelial cells, longer or shorter straight thickish bacilli. There were present numerous comma bacilli, some single, others in dumb-bells. ..... On microscopic comparison, it was found that they were of the same character as the choleraic comma bacilli, except that perhaps they looked a trifle smaller than those in the choleraic mucus flakes. Cultivations were made of them on six gelatine plates, and in one of these after three days there were no doubt a few colonies which corresponded with those of the choleraic comma bacilli; this was proved to be the case after two more days. Cultivations in gelatine tubes and in agar-agar tubes yielded growths indistinguishable from the cholera comma bacilli."

The object of this experiment is to show that in the monkey's ileum a comma bacillus was present, but could not be demonstrated before a pathological state had been set up, after which it was found without difficulty. This is meant to be analogous to the failure of all observers to find Koch's organism in the normal human ileum, and the easy demonstration of its presence there in the collapse stage of Asiatic cholera. Unfortunately for the analogy, Klein does not show that his organism could not be found before the pathological state was set up in the ileum of the monkey, for he omitted examination by cultivation, the method most to be relied on for detection when few organisms are present, and without which identification is impossible. He examined microscopically alone, and, moreover, only one droplet. Further, had he employed both methods and failed to find the organism he was looking for, there would still remain the fatal objection to the experiment, that there appears to have been no sterilisation of the syringes used or of the needles and sulphate of magnesium solution introduced into the intestinal loop where later the comma bacilli were found. This sterilisation precaution was an indispensable detail in an otherwise minutely detailed experiment.

Turning from the experimental to the logical method employed, the argument runs thus: Before the ileum of a monkey was brought into a pathological state no comma bacilli were found; after that pathological state was produced, comma bacilli were found in large numbers; therefore, Klein goes on to say: "I conclude from the above successful experiment that owing to the pathological state set up, the comma bacilli, *no doubt present already before the operation, but in far too few examples to be recognised in the microscopic specimens*, had so rapidly multiplied that their demonstration was then comparatively easy."[2] (The italics are not in the original).

To say the least of this argument, a more logical conclusion would have been that their multiplication was an example of spontaneous generation! The expression "no doubt present already before the operation" is a fine specimen of that class of assumption commonly termed unwarrantable. Here, again, it is not quite clear whether Klein claims that he was dealing with Koch's organism, or with one identical only as to the characters given. The experiment just referred to is in itself scarcely worthy of the space devoted to it here. Its insertion is due to the importance its author has attached to it since it first appeared in the *British Medical Journal*, where, applying it to the cholera question, he says: "It is evident from this that the pathogenic state of the intestine produced the condition favourable for the multiplication of the comma bacilli, and they are therefore the *result* and not the cause of the disease." Two years later it again appears in a long cholera article in the *Practitioner*, but with more detail. It is the only detailed experiment furnished by Klein upon which it is possible to form a judgment of his experimental method when dealing with this cholera question, another reason for the length at which it is quoted, and the consideration it has received.

[2] Practitioner, May, 1887, pp. 324 to 326.

PART IV. *The Reproduction of the Disease.*—If Koch's comma bacillus be the cause of Asiatic cholera, and the disease be capable of transmission to a lower animal, on pure cultivations of the living comma bacillus being introduced into the small intestine of a lower animal, growth and multiplication of the organism in the small gut must be associated with the signs requisite for the recognition of the disease in man, and it must be shown that the means by which the organism was introduced into the bowel do not of themselves produce such signs of the disease.

In Shanghai two sets of experiments resulted in failure, and for want of time further work of the kind was put off till the opportunity afforded by a holiday in Europe presented itself. The responsibility for this part of the work is not, therefore, shared in by both observers. While the early part of Koch's work was deemed of sufficient importance to be examined into by several British workers, and all these, with the exception of Drs. Roy, Brown, and Sherrington, have practically confirmed Koch's facts up to the point of reproduction of the disease in this country, Klein and Watson Cheyne alone have experimentally examined Koch's claim of having reproduced the disease as set forth at the second Berlin Congress of 1885, while several have been content to criticise. Watson Cheyne confirms Koch's results after Nicati and Rietsch's method, but does not appear to have made experiments after Koch's own method. Klein allows that Koch's bacillus is pathogenic to guinea-pigs, but opposes the conclusion drawn as to its relationship to Asiatic cholera.

In two leading articles of *Nature* for July 10th and 17th, 1884, Klein, with no uncertain sound, declared his opinion against Koch's conclusion before he had made a personal acquaintance with the facts, and before he was appointed by the British Government to inquire into the relationship of the organism to the disease. It is to be regretted that he proceeded to India later in the year, having such a position to defend or evacuate. Perhaps no one has done more than Klein in connexion with this part of the cholera question, and certainly no one in this country has more materially influenced British scientific opinion. Frequent reference is therefore here made to his work.

At the present time the general medical opinion in this country as to the relationship of the comma bacillus to Asiatic cholera may be stated thus: the organism is found as a constant concomitant of the collapse stage of Asiatic cholera in Europe, Egypt, India, &c.; it has not been found apart from the disease; it occurs in that part of the body specially affected—viz., the intestinal canal,—and disappears from it with the disease; while it may be regarded as pathognomonic, it has yet to be proved to be the cause of the disease.

Many workers having failed to reproduce the disease, Nicati and Rietsch, believing that Koch's organism given by the mouth did not reach the intestine alive, opened the abdominal cavity of dogs and injected cultivations of the bacillus into the duodenum, both with and without ligation of the bile-duct. Under these conditions they believed that they reproduced the disease. Van Ermengen, Koch, Watson Cheyne, and others repeated those experiments with the same results, but the method has not been regarded as satisfactory for several reasons.

(To be concluded.)

CASES ILLUSTRATING RENAL SURGERY.

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SURGEON TO UNIVERSITY COLLEGE HOSPITAL.

THE following five cases of operation on the kidney appear each to possess some special features of interest which render them deserving of record. But, besides this, they form, when added to those series I have already published in the Transactions of the Royal Medical and Chirurgical Society and in THE LANCET, a complete list of all my renal operations performed up to date in hospital. In studying the statistics of renal surgery, it has always appeared to me that such completed series are urgently called for. We need to know what class of cases has been subjected to operation, the various modes of procedure adopted, their relative risks,

and the results immediate and remote after a sufficient time has elapsed to enable us to form sound conclusions. These points cannot be thoroughly worked out statistically until surgeons come forward with *all* their experience of renal operations, favourable and unfavourable. In so far as this group, taken together with the series already alluded to above, embodies the entire personal experience of one surgeon in operations on the kidney, and their immediate and remote results, I trust it may be of value. I should like to add to it, by way of greater completeness, a considerable number of other cases which have been under my observation for obvious renal disease suggesting operation, but which for one reason or other had not been operated on, and the result in each. These, however, must be reserved for future consideration.

CASE 1. *Intermittent hydronephrosis due to renal calculus; nephro-lithotomy; relieved.*—E. B——, aged twenty-two, a laundress, was admitted into University College Hospital on April 21st, 1885. There was nothing of note in either her personal or family history. The patient's attention was first drawn to her kidneys thirteen years ago by a violent pain in the left loin, which used to last about twelve hours. She had this every other day for five years, and then about twice a week only, but still lasting twelve hours. For the last four years the pain has come on regularly every six days, and has been more severe than formerly. During the attacks nothing unusual has been observed in the urine, but on their cessation she has noticed that it was "thicker" than before; there was always some deposit present. She has also suffered from a great sense of fulness in the loin, and as if something was about to burst. The attacks have sometimes been accompanied by sickness, but not so much of late. There is between-whiles no frequency of micturition, but during the attacks urine is passed more frequently and abundantly.[1]

On admission the flanks appeared symmetrical, and I could not feel the left kidney with or without the aid of an anæsthetic. Being rather sceptical about the periodicity of the attacks, which she described as perfectly regular on every sixth day, I asked Dr. F. Penrose, then house surgeon, to give special attention to the point, which he did, and the following note was made on April 24th: "Yesterday evening the patient began to feel the weekly pain; it commenced at 7.15 P.M. and lasted until 8 A.M. this morning. The patient was examined twice during the attack, but nothing fresh was made out. Her pupils were much dilated. Was in great pain all night." Dr. Penrose assured me that there could be no question that the suffering was very great. The temperature was not raised during the pain; indeed, in the middle of the attack it is recorded as 97°, having been normal before. A careful record was now kept of the daily amount of urine passed, with its specific gravity &c., starting from the same hour every morning. On certain days for various causes the exact amount was not set down, probably because some was lost with the motions. Similar attacks of pain, of the severity of which there could be no question, were observed exactly every six days—viz., on April 29th,[2] May 5th, 11th, and 17th; and it is interesting to note the effect upon micturition for the day following each, which bore out completely the accuracy of the patient's own observations. The following short table gives the chief points of note, which may be studied further in the very complete tables recorded by the surgical registrar at the time:—

Date.	Quantity.	Sp. gr.	Date.	Quantity.	Sp. gr
April 22nd ..	28 oz.	1020	May 7th ..	—	—
„ 23rd ..	21 „	1025	„ 8th ..	—	—
„ 24th ..	72 „	1017	„ 9th ..	40 oz.	1020
„ 25th ..	34 „	1025	„ 10th ..	—	—
„ 26th ..	—	—	„ 11th ..	—	—
„ 27th ..	31 oz.	—	„ 12th ..	86 oz.	1017
„ 28th ..	48 „	1030	„ 13th ..	16 „	1028
„ 29th ..	48 „	1020	„ 14th ..	30 „	1025
„ 30th ..	81 „	1016	„ 15th ..	34 „	1020
May 1st ..	—	—	„ 16th ..	40 „	1018
„ 2nd ..	—	—	„ 17th ..	—	—
„ 3rd ..	—	—	„ 18th ..	125 oz.	1014
„ 4th ..	—	—	„ 19th ..	40 „	1025
„ 5th ..	—	—	„ 20th ..	—	—
„ 6th ..	89 oz.	1015	„ 21st ..	Nephro-lithotomy.	

Average daily amount for twelve days between attacks, 24 oz. Average daily amount for the days following the five attacks observed, 90·6 oz.

Here it may be seen that after each attack the amount of urine passed in the following twenty-four hours about trebled the average daily quantity as observed on twelve different days between the attacks. The specific gravity of this urine for the day was below the average (1014 to 1017), though samples of it were often as high as 1020 to 1025.

Taking the history, symptoms, and state of the urine all together, it appeared to me that they justified the conclusion that there was a calculus blocking the outlet of the left kidney. It seemed probable, however, that this stone did not completely arrest the flow of urine from the organ, but that the fluid accumulated behind it until the pressure became so great as to overcome the resistance every sixth day, and then the urine escaped past the foreign body, relieving the pressure and consequent severe pain. That the urine thus escaping from a distended kidney should be of low specific gravity is only what might be expected. Urine thus secreted under high pressure has been proved by experiment to be deficient in density—as, for instance, when the ureter is ligatured in animals. This was also proved by a case of traumatic hydronephrosis, which I have already published in detail in THE LANCET.[3] In the latter case the urine drawn off by aspiration from the tumour was always of lower specific gravity than that from the opposite side; but when some time later I established a fistula in the loin, and thus readjusted the equilibrium of secretion in the kidneys, the density of the urine passed on the injured side rose until it corresponded with that of its fellow. In the present case the fluid passed after each attack was the product of both organs, and was thus probably even of higher density than that flowing off from the hydronephrosis alone. It will be noted that in the early history of the case the attacks came on every other day, then later twice a week, and finally every six days. This gradual lengthening of the interval is best explained by the steady dilatation of the organ behind the obstruction, so that latterly six days were required for the accumulation of the urine to reach what I may call the "bursting point," whereas only one or two days were required early in the course of the affection. The pus in the urine was not sufficient to indicate much damage in the kidney, but would correspond to a moderate degree of irritation of the pelvis of the organ by a stone.

Adopting the foregoing hypothesis, I cut down upon the kidney in the usual manner from the loin on May 21st, and found the organ much sacculated. On incising it, a good deal of urine escaped, and a stone about the size of a raisin was extracted by means of a bullet forceps from the commencement of the ureter. Free drainage was provided for, and the usual antiseptic dressings were employed. On the 29th there was a return of the weekly pain, but to a smaller extent, and only lasting seven hours. From May 27th to July the patient was in the erysipelas ward on account of wandering erysipelatous rash, but beyond this there is nothing special to notice about the course of the case until the patient was able to get up and about with a fistula in the left loin, from which an abundant flow of urine took place. This was collected by a special urinal of very simple construction, which I devised for her, and which kept her quite dry, and has enabled her to get about her work in comfort ever since. As soon as the patient was convalescent, the urine from each source was carefully studied. That secreted on the left was always some ounces less in quantity than that passed from the bladder—e.g., 35 oz. : 25 oz. That from the affected kidney was always of lower specific gravity than that from the bladder (=1008 : 1018) for the same period. The urea was also deficient on the left (=·4 : 1·8 per cent.) for the same period. These relations were remarkably constant, only varying by a very small fraction during many days. When the patient had recovered her strength and spirits, I was anxious to ascertain whether the ureter was still pervious, with a view to allowing the lumbar sinus to close. I therefore on Aug. 22nd attached to the urinal tube leaving the loin a doubly bent glass tube, the downward curve being filled with mercury. The level of the latter was now brought exactly to that of the fistula as the patient lay in bed, and the urine was allowed to flow freely from the kidney on to the mercury in the near arm of the tube. After allowing all excess of fluid to run off by a side tap, the latter was closed and the mercury was watched. After a few minutes there was exactly half an inch difference between the levels of the two columns of mercury—i.e., one had been forced down a quarter of an inch, while the other had risen correspondingly. This height of the mercurial column did not vary, no matter how long the tube was attached

[1] The urine was acid, of a specific gravity of 1020 to 1025, and showed a deposit of pus in small amount. It contained 221 grains of urea on April 22nd, 180 on the 23rd, and 224 on the 25th, for each twenty-four hours.

[2] Notes of this attack are deficient.

[3] Jan. 17th and 24th, 1885.

to the kidney; and though it remained so on one occasion for an hour and a half, there was no leakage at the side of the rubber drainage tube from the kidney. It was fair to assume, then, that when the pressure within the kidney reached a degree equal to the weight of a column of mercury half an inch high (=3 oz. to the square inch), the obstruction in the ureter was overcome, and the urine passed into the bladder. Two days later I tested the perviousness of the ureter in another way—i.e., by injecting milk into the renal fistula. Under slight pressure, and with a small amount of pain, this passed freely in, and five minutes later the milk, almost undiluted, was passed per urethram. All this led me to think that, as the ureter was pervious with only slight pressure, the drainage tube might be left out and the renal fistula in the loin allowed to close. This was done on Aug. 24th. On the 28th there was no urinous discharge from the sinus, but some pain in the loin, was complained of. On the 31st this pain became very severe, like the attacks previous to operation: still no urinous discharge from the sinus. The patient looked very well and fat, however, and was allowed to return home the same day. On Sept. 2nd, while travelling by rail, the wound opened and discharged a large quantity of urine, which continued to flow until the 7th. It then ceased until the 16th, during which period much pain was suffered, but this ceased on the wound opening once more. On the 22nd I saw the patient again, and reintroduced the drain with its attached urinal, which she has worn ever since with comfort. The patient has been so strong and well for the three years that have elapsed since operation that, though the question of removing the kidney has been discussed, she feels with me that as long as the urinal acts as perfectly as it has hitherto done, such an operation is uncalled for. I saw the patient a week ago, well and cheerful.

CASE 2. *Gonorrhœal pyelitis; nephrotomy; cured.* — R. W——, aged twenty-two, was admitted into University College Hospital, under the care of Dr. Bastian, who kindly transferred him to me, on May 25th, 1885. In July, 1884, he had contracted gonorrhœa, which lasted three weeks, and was followed by slight cystitis. All symptoms except occasional pyuria, however, disappeared after this, and the patient appeared well until December, 1884, when he was attacked by severe pain in the right loin, accompanied by vomiting, fever, and a permanent increase of pus in the urine, and he was confined to bed for fourteen days. At the end of that time much flesh had been lost, and walking about was painful.

On admission into hospital the patient was very weak and emaciated, and there was much pus in the urine. A large elastic semi-fluctuating tumour was discovered in the right flank. Its borders were rounded, the anterior edge reaching to the middle line at the umbilicus; its posterior border was also rounded, but indistinct, reaching close to the spine, and its lower limit was the iliac crest. This tumour was freely movable on palpation, but not on respiration, and was clearly a distended kidney. The urine was of a dirty brown colour, slightly ammoniacal, its specific gravity 1025, and it contained pus and urates. The temperature varied up to 101·8°.

On May 26th I aspirated through the loin, and drew off 20 oz. of chocolate-coloured pus, which gave relief for a few days; but by June 5th it was plain that the pus had re-formed. I again aspirated to the extent of 13½ oz. of the same fluid. This was again necessary on June 16th, 19th, 25th, and July 7th, 3 oz., 7 oz., 12 oz., and 14 oz. of pus being withdrawn respectively on these days, giving temporary relief from pain and fever. On the last occasion it appeared clear that the collection of pus had travelled from the kidney into the perinephral tissues at the point of puncture, and was approaching the surface of the loin, and the patient was in a most exhausted state, with high fever. With some difficulty he was at last persuaded to consent to nephrotomy, which I performed on July 8th in the usual way through the loin, giving exit to a large amount of chocolate-coloured pus. The pelvis of the kidney was found collapsed, having drained into the abscess, and a free opening was established into it. A large drainage tube was then introduced into the deepest part of the cavity, and the wound was partially closed with stitches. After the operation a large quantity of chocolate-coloured pus was passed within the first twenty-four hours per urethram, but then gradually diminished in amount. Recovery was uninterrupted and rapid, the patient gaining flesh daily and soon losing all trace of fever. He was discharged on Aug. 10th, looking well, with a small sinus in the loin and still about one-twelfth of pus in the urine. The sinus in the loin remained open for some months, but under careful irrigation with a solution of bichloride of mercury ultimately closed permanently. The patient, whom I have seen within the last few weeks (Oct. 1888), is now strong and well in every respect. The scar in the loin is perfectly sound, and gives no trouble.

(To be concluded.)

THE ETIOLOGY OF CROUPOUS PNEUMONIA.

BY GEO. M. STERNBERG,
MAJOR AND SURGEON, U.S.A.

(Continued from p. 371.)

SALVIOLI, whose experiments were also made in 1884, had a uniformly fatal result from the injection of pneumonic sputum into rabbits (four). He also observed the oval coccus in the material injected and in the blood of the animals which succumbed to his injections, but did not recognise the identity of this coccus with that which my own experiments and those of Pasteur, Vulpian, and others had shown to be present in normal human saliva, and to induce a fatal form of septicæmia in rabbits. On the other hand, he also appears to have taken it for granted that the oval micrococcus encountered by him, and which under certain circumstances was surrounded by a transparent capsule, was the pneumococcus of Friedländer. Klein[1] appears to have made the same mistaken inference. This is shown by the following quotation from his paper published in 1885: "In seeking to ascertain what might be the relation between the so-called pneumococci and croupous pneumonia, I have made extensive examination of the lungs and blood of persons dead of the disease, and also of the sputum of living patients at various stages of their illness. ..... In some of the air-vesicles, though few and far between, there were present undoubtedly the capsulated cocci spoken of by Friedländer and others as pneumococci. ..... As regards the living patients, if we examine typical sputum of croupous pneumonia, we find, besides numerous red blood discs and white blood corpuscles, also a few epithelial cells, and in the general gelatinous matrix numbers of micro-organisms, chiefly belonging to the species micrococci. ..... These are, as far as size and arrangement go, of two principal types: (*a*) oval micrococci, about 0·001 mm. in length, occurring isolated but more commonly as dumb-bells and slightly curved chains of four, six, and even eight elements. ..... But in all these micrococci the elements are distinctly surrounded by a hyaline zone, which in stained preparations can be made out as an unstained halo; though in some stained specimens it assumes a tint that is fainter than that of the micrococcus itself; this corresponds to the capsule of Friedländer, and for this reason he called them capsule micrococci." In a foot-note to the paper from which I have quoted Klein says: "While this paper is passing through the press, I receive from Dr. Sternberg of Baltimore a paper in which he conclusively proves that the micrococci of human saliva, which produce in some instances septicæmia on inoculation into rabbits, are identical with the pneumococci of Friedländer, Salvioli, and others."

My own experiments with pneumonic sputum were made in January, 1885, and led me to the identification of the oval coccus found in this material with the coccus found in my own saliva (by inoculations in rabbits), in September, 1880, and subsequently studied by me in an extended series of experiments made during the following years, 1880-84.[2] But at the same time I fell into the error of inference pre-

[1] The Etiology of Acute Croupous Pneumonia (Human), and of Pleuro-Pneumonia (Cattle). Fourteenth Annual Report of the Local Government Board. London, 1885.

[2] A Fatal Form of Septicæmia in the Rabbit produced by the Subcutaneous Injection of Human Saliva (Johns Hopkins Univ., Stud. Biol. Lab., Balt. 1882, vol. ii., No. 2, pp. 183-200, pl. 1; also Nat. Bd. Health Bull., vol. ii., p. 961). Experiments with Disinfectants (Johns Hopkins Univ., Stud. Biol. Lab. Balt., 1882, vol. ii., No. 2, pp. 201-212; also Nat. Bd. Health Bull., Washington 1881, vol. iii., No. 4). Induced Septicæmia in the Rabbit (Am. Journ. Med. Sc., Phila., 1882, vol. lxxxiv., pp. 69-76). Virulence of Normal Human Saliva (Medical Times, Phila., Nov. 4th, 1882). Germicide value of Therapeutic Agents (Am. Journ. Med. Sc., April, 1883, p. 321-343).

viously made by Professor Sée, by Salvioli, and others, and assumed that the pneumococcus which Friedländer had obtained from the same source was the same, although I found it difficult to reconcile the experimental data, inasmuch as he had obtained uniformly negative results in his inoculations into rabbits. To explain this discrepancy I suggested that Friedländer's pneumococcus was probably a variety having a different degree of pathogenic power. This supposition seemed to find support in the fact which I had previously observed, that my micrococcus Pasteuri became attenuated, as to its pathogenic power, when the cultures were kept for some time; and that there seemed, from the experimental evidence before me, to be different pathogenic varieties in the buccal secretions of different individuals. At this time I had not seen a culture of Friedländer's bacillus. Later, in the autumn of 1885, when I made its acquaintance in Dr. Koch's laboratory, I recognised my mistake and hastened to correct the error.[3] For a detailed account of my experiments with pneumonic exudate I must refer to my paper published in the Transactions of the Pathological Society of Philadelphia (vol. xii) and in the American Journal of the Medical Sciences (July, 1885). With reference to my conclusion that the oval coccus of Talamon and of Salvioli was identical with my micrococcus Pasteuri, I may say that this conclusion has been sustained by the subsequent investigations of Fränkel, Weichselbaum, Bordoni-Uffreduzzi, Netter, Gamaléia, and others.

Fränkel's first paper relating to the presence of this micro-organism in pneumonic exudate was published in 1885.[4] Having ascertained that his own saliva contained this oval micrococcus, he was induced to make an extended and interesting series of experiments, which led him to the conclusion that this micro-organism is far more constantly present in the exudate of fibrinous pneumonia than is the so-called pneumococcus of Friedländer. He says: "Finally, as regards the relative frequency of the two hitherto investigated micro-organisms in cases of pneumonia, no positive statement can yet be made. Nevertheless, I am inclined to regard the lancet-shaped pneumonia coccus, which is identical with the microbe of sputum septicæmia, as the more frequent and the usual infectious agent of pneumonia, on the ground that this organism is so much more frequently found in the sputum of pneumonic patients than in that of healthy individuals. This conclusion is further supported by the fact that it has not hitherto been possible to isolate directly from the rusty sputum Friedländer's bacillus."[5]

The extended researches of Weichselbaum,[6] published in 1886, gave strong support to the view that this coccus is the usual infectious agent in "croupous pneumonia." He examined the exudate in 129 cases of pneumonia. In ninety-four of these cases the micrococcus in question, called by Weichselbaum "diplococcus pneumoniæ," was obtained fifty-four times in cultures; in twenty-one cases he obtained a streptococcus, and in nine only was the bacillus of Friedländer encountered.

Wolf,[7] whose studies were made in Weichselbaum's laboratory, reported the result of his researches in 1887. He found the diplococcus pneumoniæ in sixty-six out of seventy cases of croupous pneumonia examined, and the pneumococcus of Friedländer in three cases.

Netter,[8] whose paper was published in November, 1887, found micrococcus Pasteuri in 75 per cent. of his cases of pneumonia, and in the sputum of convalescents from this disease its presence was verified in 60 per cent. of the cases by inoculation experiments in rabbits. He makes the interesting observation that the sputum of recent convalescents is less virulent for rabbits than that collected at a later period.

Gamaléia, who has recently published, in the Annals of the Pasteur Institute, an important paper upon the etiology of fibrinous pneumonia, verified the presence of micrococcus Pasteuri in twelve fatal cases in which he collected material post mortem. He states that, in a series of forty successive cases, Dr. Goldenberg, whose experiments were made in his laboratory, found this micrococcus in every case by inoculation experiments in rabbits or in mice. According to Gamaléia, inoculations in mice are more reliable than those made in rabbits, as the mouse is the more susceptible animal. He says: "The author, Weichselbaum, who has made the most extended research upon the etiology of pneumonia, used in his researches the method of cultivation upon gelatine. We must adopt the opinion of Baumgarten, who does not accord any decided value to the negative results of Weichselbaum with reference to the constant presence of streptococcus Pasteuri. Netter, who adopted the method of inoculating the pneumonic sputum into rabbits, and who only found the microbe of Pasteuri in 75 per cent. of his cases, was wrong, in our opinion, in making use of an animal which is too resistant to determine the presence of small quantities of virus. This opinion is confirmed by the fact that Netter rendered some rabbits refractory by his inoculations with material in which he had not found the specific microbe. *En résumé*, taking our stand upon the positive results which we have always obtained, as well as upon the superiority of the method of research (inoculations in mice) which we have adopted, we believe ourselves authorised to conclude that fibrinous pneumonia is always dependent upon the microbe of Pasteur."[9]

Fränkel, Weichselbaum, and other recent authors, while maintaining that micrococcus Pasteuri is the most frequent etiological agent in the production of pneumonia, have been disposed to admit that in a certain proportion of the cases the bacillus of Friedländer, and possibly other micro-organisms, may bear the same relation to the pneumonic process. Gamaléia, on the other hand, believes that the bacillus of Friedländer is a simple saprophyte, the occasional presence of which in pneumonic exudate is without etiological import. He remarks as follows: "We may be brief as regards the second objection made against the etiological unity of fibrinous pneumonia—viz., with reference to the etiological rights of the microbe of Friedländer. This microbe is found in normal saliva; it is a true saprophyte, and may at times invade the diseased or dead lung. Weichselbaum only found it in 7 per cent. of his cases, and almost always associated with other microbes, for he only encountered it pure in three cases. As to the researches of the authors who preceded Fränkel, it is certain that the microbe which they often found in sections of diseased lungs, and which they called the microbe of Friedländer, was in fact the microbe of Pasteur, since it was coloured by the method of Gram, which decolourises the bacillus of Friedländer. Many of the positive results, then, which have been reported relative to the last-mentioned micro-organism ought to be put to the account of the other." This opinion I have entertained since my researches made in 1884 and 1885.

The experimental evidence offered by Gamaléia in favour of the etiological *rôle* of this micrococcus is most important. It will be remembered that Talamon produced typical pneumonia in eight rabbits, in 1883, by inoculating them through the thoracic walls with pneumonic exudate. Gamaléia says: "The number of my rabbits in which pneumonia was induced is about 200." I found in my experiments made in 1881 that in making a series of inoculations in rabbits the virus increased in virulence; and that, on the other hand, the micrococcus lost its virulence when the cultures were kept for some time. This fact has been verified by the subsequent researches of Fränkel and Gamaléia. The last-named author has shown that to induce pneumonia in very susceptible animals, like the rabbit, an attenuated variety of the microbe should be injected, for the most virulent cultures quickly cause death by septicæmia. As he expresses it: "Animals which are too susceptible, like the rabbit and the mouse, do not have pneumonia, because they do not offer a local reaction; the virus is generalised in their bodies, and they die of an acute septicæmia." On the other hand, Gamaléia has shown that "animals which are but little susceptible to the pneumonic virus offer a local resistance, which gives rise to very pronounced reactionary phenomena (extended fibro-granular œdema), and consequently they present, as a result of intra-pulmonary infection, a typical fibrinous pneumonia. Such animals are the dog and the sheep." In his experiments upon these animals, Gamaléia obtained the following results: The sheep was found to survive subcutaneous inoculations, unless very large doses (5 cc.) of the

[3] See my paper published in the American Journal of the Medical Sciences for July, 1886.

[4] Bacteriologische Mittheilungen. Verhdlg. d. Vereins f. innere Med., July 13th, 1885; Deutsche Med. Wochenschrift, No. 31, p. 546, 1885.

[5] Zeitschrift für Klin. Med., Bd. x., Hft. 5 and 6, 1886.

[6] Wiener Med. Jahrbucher, 1886.

[7] Wiener Med. Blatter, 1887, Nos. 10 to 14.

[8] Compt. Rend. Hebdom. d. Séances de la Société de Biologie, 1887, Nov. 4th, No. 34.

[9] Annales de l'Institut Pasteur, tome ii., No. 8, Aug. 25th, 1888, p. 447.

most potent virus were administered. But intra-pulmonary inoculation was always followed by typical fibrinous pneumonia, which in the majority of cases proved fatal. The microbe was rarely found in the blood, and successive inoculations from one sheep to another were not successful. Death occurred after an intra-pulmonary inoculation on the third, fourth, or fifth day. The pneumonia produced was lobar, and was attended with an extensive fibrinous exudation, in which the coccus was found in great abundance. In all, fifty sheep were experimented upon. I found in my experiments made in 1881 that the dog resists inoculations with this coccus. Gamaléia also obtained negative results when moderate doses were injected beneath the skin, but states that "intra-thoracic infection always causes a frank fibrinous pneumonia, which is rarely fatal; recovery usually occurs in from ten to fifteen days, after the animal has passed through all the stages of red and grey hepatisation which characterises this affection in man." Twelve dogs were experimented upon. This micrococcus, then, which in very susceptible animals (mouse, rabbit) invades the blood and quickly causes death by septicæmia, when injected through the thoracic walls in less susceptible animals (dog, sheep), or in an attenuated form in the rabbit, gives rise to the local lesions which characterise fibrinous pneumonia. Man comes in the category of slightly susceptible animals, as is shown by the comparatively small mortality from pneumonia, and by the fact that the micrococcus found in the exudate into the pulmonary alveoli does not invade the blood, unless in rare instances. We may therefore agree with Gamaléia in the following statement: "It is clear that the results obtained in the dog and the sheep, animals which have but a slight susceptibility, are most applicable to human pathology." In my paper read before the Pathological Society of Philadelphia in April, 1885, from which I have already quoted, I say: "It seems extremely probable that this micrococcus is concerned in the etiology of croupous pneumonia. ..... But this cannot be considered as definitely established by the experiments which have thus far been made upon the lower animals." The experiments of Gamaléia go far towards settling this question in a definite manner, and considered in connexion with those of Talamon and Salvioli, and the extended researches of Fränkel, Weichselbaum, and Netter, leave but little doubt that this is the true infectious agent in acute lobar pneumonia.

(To be concluded.)

ABDOMINAL MASSAGE IN CONSTIPATION AND ALLIED CONDITIONS.

BY T. GERALD GARRY, M.D.

DURING the past few years I have seen a large number of cases of constipation successfully treated by massage (many in conjunction with that eminent authority on the subject, Dr. J. F. Little of Welbeck-street), and believe it to be the most reliable remedy yet brought before the notice of the profession for this obstinate condition. In the majority of cases it will be found a specific, if the manipulations are carried out with due regard to the cause of the constipation. Unless this is done, failure is quite possible, and it is even conceivable that harm may result; for massage is not simply a therapeutic agent with localised effects, but a combination of several factors having far-reaching results. This will appear evident from consideration of the physiological effects, which are very important, and may be classified under the following heads.

Mechanical.—This is of the greatest importance, and not only exercises its influence on the gastro-intestinal canal, but also on the large ducts opening into the intestine, as well as the ducts of the abdominal glands. It also causes an emptying of the veins of the portal system, and I think there can be little doubt that it stimulates the bile-secreting functions of the liver. In its action it thus resembles both the hydragogue and cholagogue purgatives, particularly the latter. There is a class of cases of greater frequency perhaps than is generally supposed, and almost confined to persons who live freely and suffer from sluggish livers, where there is retention of bile in the gall-bladder and within the ducts. It is in conditions of this sort that massage finds one of its most useful applications, and the remedy need only be tried to command entire satisfaction. Even when the obstruction in the ducts is more serious, massage will be found extremely useful, as was well exemplified by a case that came under my observation some time ago. The patient, a middle-aged man, suffered from jaundice, in all probability due to obstruction in hepatic ducts. Treatment by massage was commenced; the obstacle—very likely inspissated mucus—was removed after half-a-dozen manipulations, with entire and remarkable disappearance of all the symptoms. It is scarcely necessary to remark that where calculi are suspected, extreme care is necessary in manipulating, else serious injuries may result. The mechanical effects are best carried out by kneadings and strokings. The former acts directly by the fingers of the operator laying hold of and loosening the impacted fæces through the abdominal walls, and indirectly by increasing the secretions passed into the intestines, thus facilitating the progress of the loosened mass. The strokings act directly, and, when conducted with due regard to the situation of the colon, give a natural direction to the loosened fæces. The strokings are also extremely useful in the various obstructive conditions already alluded to.

About the next effect—the *reflex*—there can be no doubt concerning the well-known physiological fact that even slight tapping on the surface of the abdomen causes contraction of the intestinal walls. It is best carried out by slappings (*tapotement*) done with the palmar surface of the fingers, or, better still, with the half-closed fist. *Tapotement* acts principally on the intestinal walls, to which it imparts tone.

The *thermic* action is not so hypothetical as it may appear to some. Dr. Eccles, in his paper read before the last meeting of the Association at Glasgow, conclusively proved this, and I have myself lately conducted some experiments which mainly coincided with the facts adduced by him. In all the cases experimented on the temperature rose from 1½° to 4°, as shown by the thermometer in the rectum. When the thermometer was placed in the mouth, the variations from the average normal were unsatisfactory; in one case there was an increase of nearly ·5°, but in others there was a slight decrease.

The *pulse*, as indicated by the radial and temporal arteries, was without exception materially slower, a circumstance which it is difficult to account for, but it must be taken as an indication of great practical importance.

It will be seen from the foregoing results that a routine plan of treatment is quite inadmissible in abdominal constipation and obstructive conditions of the hepatic ducts. If we only ascertain the exact nature of the case, the exact procedure to be followed will suggest itself. It is because this is not done that we hear of so many failures even after weeks of treatment. The following cases may perhaps be of some practical use, as showing the conditions that existed and the manipulations employed for their successful treatment.

CASE 1.—The patient, a clerk, complained of nothing but the constipation from which he suffered for years. He presented a fairly healthy appearance; the muscular system was well developed, and the abdominal wall was normal in appearance and natural to the touch. In this case the manipulations were confined to short sharp tappings, practised in the direction of the ascending, transverse, and descending colon. After about eight minutes deep strokings were resorted to for a few minutes, but after a time it was sufficient to practise the former alone. This man was perfectly cured after five weeks' treatment. Lately for cases of this sort I am in the habit of using the faradic current for about five minutes, and commencing with four cells. The instrument used is Coxeter's new patent, a most perfect machine.

CASE 2.—This patient was a middle-aged lady, with a history of uterine trouble. She could walk but very imperfectly, and complained soon of a feeling of exhaustion. The entire muscular system was wanting in tone, the abdominal muscle being particularly weak and flabby. She complained of a sense of weariness along the spine, but there was never actual pain. So far as could be ascertained, the secretions were normal, except that the urine frequently contained large quantities of urea. I believe that this condition will be found to exist in a large class of neurasthenics when no degenerative changes are to be found in the spinal cord, but simply atony brought on in most cases by overwork or anxiety. This case will be found

typical of a large number of others, and, as it is the constipation which gives the most trouble, it is the symptom for which the medical man is usually consulted. Here there is loss of tone not only in the abdominal muscles, but also atony of the intestinal walls, and our object must be to strengthen those parts. This is best attained by certain manipulations, which include circular movements, kneading, and *tapotement* or *pétrissage*. The first procedure can be carried out either with one or both hands, and it is necessary that the abdominal walls should be slightly relaxed, so that the intestines can be reached and acted directly on. But in a case of this nature, although abdominal massage will effect a great deal of good, it will not be productive of lasting benefit if we omit to massage the spine. The cause of the constipation is partly situated here; there is functional derangement of the cord, and until this is removed by mechanical stimulation it is hopeless to expect a complete cure. In these cases I have noticed that from the first day in which massage was commenced the excessive secretion of urea decreased, and after a week had disappeared altogether, leaving the urine perfectly normal. This is the first time that a similar observation has been made, although it has been admitted that galvanisation of the spine has a similar effect where an atonic condition of the spinal cord is found to exist.

CASE 3.—This case is typical of that large class of both sexes who enjoy good health and suffer no inconvenience, except that occasioned by constipation. The abdominal walls were flabby and pendulous, and characterised by great weakness. In cases of this sort the manipulations must be directed towards strengthening the abdominal walls, and for this purpose the abdominal recti must be forcibly separated by the finger-tips inserted deeply along the linea alba. This procedure must be followed by the circular movement already indicated. At the same time, the patient is recommended to take deep inspirations for the purpose of strengthening the diaphragm.

Massage is also extremely useful in the very obstinate constipation so frequently met with amongst infants. I have known it prove successful after the failure of the usual remedies. Few applications are needed, generally not more than a dozen, and the time occupied by each should be about ten minutes.

Liverpool.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NUX VOMICA IN CARDIAC FAILURE.

BY A. BOWIE, M.D., C.M., L.R.C.P. ED.

I WOULD like to draw attention to the value of nux vomica in the above condition. During the fog which ushered in this year I was asked to see two very marked cases, in each of which death must have speedily occurred but for timely relief.

The first case, a lady aged forty-two, had suffered more or less for three years with bronchitis and mitral stenosis. When I saw the patient her face was pale and anxious and her lips livid; the breathing was short and rapid, and pulsation at the wrist could scarcely be felt; nausea and occasional vomiting of mucus were present, and there was dread of taking food or lying down. The condition had commenced ten hours previously with epigastric pain; but while the other symptoms had increased in severity, the pain seemed to have remained stationary. I prescribed tincture of nux vomica in small doses every half-hour for four doses, then every hour, and there was rapid return to the ordinary condition, although the surroundings and the fog remained for some time as they were before.

The second case was that of a gentleman aged forty-nine, who had suffered for some years from mitral regurgitation and persistent although mild bronchitis. Exposure had induced an attack of left lobar pneumonia, which had been running the usual course until the fifth day, when a dense fog occurred in his district. Upon examination his pulse was found to be weak, rapid, irregular, and easily collapsible; his extremities were cold, with clammy perspiration all over his body, and beads of the same upon his livid countenance. He complained of intense pain over the apex of the heart, and his breathing was short and hurried. There was no sickness. His condition had been gradually taking on the above aspect for four or five hours. He had been taking digitalis for two days previously to the attack. This we at once stopped, and substituted tincture of nux vomica, as in the other case, with the result that the patient gradually rallied, and in twenty-four hours had lost his cardiac pain entirely.

I think there can be no doubt that the admistration of the nux vomica in the above cases stimulated the motor centres and the ganglionic system to increased activity, and rescued the patients from the consequences of obstructed pulmonary circulation and engorgement of the right heart.

Harley-street, W.

DISLOCATION OF THE METATARSUS.

BY H. LITTLEWOOD, F.R.C.S. ENG.,
RESIDENT SURGICAL OFFICER, LEEDS GENERAL INFIRMARY.

IN THE LANCET of Dec. 1st, in the report of the Leeds and West Riding Medico-Chirurgical Society, Mr. Atkinson records a case of dislocation of the metatarsus. Since then Mr. Atkinson has had a second case of a similar nature.

Jane C——, aged thirty-one, was admitted to the Leeds Infirmary on Dec. 2nd, at 8 P.M. At 5 P.M. she had fallen off a chair on which she was standing on to her left foot. It gave her considerable pain, and she fainted. On looking at the foot she noticed there was "a lump with a hollow behind it" on the back of the foot. On examination, the left foot was found to be everted, the metatarsus forming a slight angle with the tarsus. There was a good deal of swelling on the dorsum of the foot; the extensor tendons were prominent; the hollow of the sole was less marked than on the opposite side. On manipulation of the dorsum, the articular surfaces of the bases of the four outer metatarsals could be distinctly made out above the level of the tarsus (about one-third of an inch). The big toe was not dislocated from its cuneiform bone, but the internal cuneiform bone was dislocated upwards from the navicular bone, forming a distinct prominence on the inner side of the dorsum of the foot. The measurement from the heel to the tip of the hallux was the same as on the opposite side; from the external malleolus to the tip of the fifth toe it was a third of an inch less. Under chloroform the dislocation was easily reduced by making traction, and at the same time pressing downwards on the bases of the metatarsals. No crepitus was felt.

This case differs from the one previously recorded in not having all the metatarsal bones dislocated upwards, the big toe not being dislocated, but the internal cuneiform dislocated upwards from the navicular bone. The dislocation was not complete in either case. In the former case a suspicion of crepitus was felt on reduction, suggesting possibly a fracture. In this case no crepitus was felt. In both cases reduction was easy, the foot readily going back into its natural position, in the former case without, and in the latter case with, an audible snap. The amount of swelling consequent on the injury soon disguises the deformity, and, I think, cases may be very easily overlooked, unless seen within a short interval after the injury.

Leeds.

CASE OF CRANIOTOMY.

BY HARRY EUGENE HACKETT, M.R.C.S., L.R.C.P.LOND.,
MEDICAL OFFICER, GORTON DISTRICT, CHORLTON UNION.

THE paper read by Dr. Donald at a recent meeting of the Obstetrical Society on Craniotomy induces me to forward notes of a case recently under my care, in which the method suggested by him was used successfully. The case is also interesting by reason of Dr. Donald having previously performed craniotomy whilst he was resident at St. Mary's, and he has kindly furnished me with notes, from which I extract the following.

Mary E. L——, aged seventeen; primipara; duration of labour forty-eight hours. On July 25th, 1886, the patient was brought to the hospital in a cab. The forceps having been tried without success, version was performed. On admission the patient was much exhausted. There was a

generally contracted flattened pelvis (C.V. = 2¾ inches). The uterus was firmly contracted, with the head above the brim. The cephalotribe was applied and the head crushed laterally. The cephalotribe was reapplied, the head having been rotated so as to crush in different diameters; then by means of traction with the finger in the scalp, and supra-pubic pressure, the head came through. The patient made a good recovery. On Dec. 3rd, 1888, a message was received at 1.30 A.M., a midwife having been in attendance from 10 P.M. On examination, the head was found presenting, the funis prolapsed, and no pulsation of cord. The membranes were ruptured at about 11 A.M. by the midwife. Finding the pelvis greatly contracted, I decided to turn, thinking that the head might be got through. My friend, Dr. B. W. MacArthur, kindly assisting me, the patient being under the influence of chloroform, I, with considerable difficulty, managed to turn. The forceps were applied, without any result. I then (the occiput being backwards and the body drawn forwards) perforated through the occiput and endeavoured to extract; but, failing to do so, I perforated through the mouth, and with the assistance of traction the head easily came through. The placenta followed quickly. For four days the patient made good progress, but unfortunately on the fifth day she had a rigor, peritonitis supervened, and death occurred on the seventh day.

The ease with which delivery was accomplished after perforation through the mouth, the other method having failed, should ensure trial of this method in similar cases.

Gorton.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. THOMAS'S HOSPITAL.

CONICAL BULLET WOUND PASSING ACROSS THE SKULL FROM ONE TEMPLE TO THE OTHER; RECOVERY, BUT WITH LOSS OF VISION OF THE RIGHT EYE; REMARKS.

(Under the care of Mr. SYDNEY JONES.)

WE drew attention to this unusual case of bullet wound of the head[1] soon after its occurrence, and we now publish it in full. Such wounds are rare even in military practice. In the British returns after the Crimea, the bullet wounds accompanied by injury to one or both eyes are stated to have been forty-five in number, with three deaths. During the American war, in which the rifle bullet was conical, a large number of such injuries were met with; they are divided into those in which the wound involved both orbits with damage to the eyes, and those in which only one orbit and its contents received injury. Of the former there are thirty-nine cases, eleven of which were fatal. The conical bullet caused more severe and extensive local damage. Some of these cases[2] much resemble the one recorded by Mr. Sydney Jones. A soldier, aged twenty, was wounded by a conical bullet, which entered immediately behind the outer angle of the right eye, passed through the orbital plate at the junction of the malar and frontal bones, through the greater wing of the sphenoid, and emerged at a point corresponding to the wound of entrance, which was about half an inch in diameter. The ball apparently passed beneath the cribriform plate of the ethmoid. The optic nerves on each side were severed and the lacrymal bones destroyed; the eyes were also irretrievably damaged. Profuse suppuration and restlessness occurred. Sequestra were removed. A salty discharge from the left eye was present for a time after the seventeenth day. He suffered from anosmia and had night sweats. In the case of a man aged twenty-four, the bullet entered above the left zygoma and passed out of the head at the outer and upper part of the right orbit, destroyed both eyes, produced anosmia, and later on sequestra required removal. In another the bullet passed through transversely at a point corresponding to an inch and a half from the angle of the eye; in several others it took a similar direction, and the wound followed a similar course, producing complete loss of sight and followed by suppuration. In a man aged twenty-one, a conical ball entered at the external angle of the right eye, passed through the nose and lodged, destroying the right eye entirely. Inflammation and loss of sight in the left eye followed. The question as to the development of sympathetic ophthalmia in the remaining eye, when only one is destroyed, is important with regard to the prognosis and treatment. Out of ninety-one cases where one eye was destroyed, the sight of the remaining eye was impaired or it was sympathetically affected. In one case mental aberration developed, from which the patient slowly recovered. In several, small sequestra required removal, and in one treatment for fixation of the jaws was required. Secondary hæmorrhage does not appear to have been very frequent in this kind of wound, though the vascularity of the bones of the face has rendered wounds of them specially liable to troublesome hæmorrhages, whether primary or secondary. For the notes of the following case we are indebted to Mr. Arthur Lankester.

A. W——, aged forty-six, a strong, somewhat plethoric-looking man, was admitted on October 5th with a bullet wound in his right temple. He had been found about an hour before in his bedroom lying unconscious, with a five-chambered revolver close by his side, one chamber of which had recently been discharged. When first found, he was bleeding somewhat profusely at the mouth and nose.

On admission, the man was in a semi-conscious state, breathing heavily, but with a fairly good pulse. There was a small round hole in the region of the right temporal fossa, one inch behind the orbital margin and half an inch above the zygomatic arch. From this hole blood was trickling, but in inconsiderable quantity. The skin around the wound was blackened. There was slight bleeding from the mouth and nose, none from the ears. Over the left malar bone, and below it, there was some swelling of the parts, and, on careful examination, crepitus was obtained, and a small hard body could be felt immediately below the zygomatic process of the bone. There was no aperture of exit of the bullet. The whole face was congested, and there was great ecchymosis of eyelids, especially on the right side. Half an hour afterwards he was perfectly conscious, and answered questions rationally. He complained of thirst and of pain across the frontal region. On examining the eyes, the right one showed marked conjunctival chemosis; the pupil was dilated and inactive to light; vision was lost, perception even of light being absent. With the left eye the patient could see a hand held up before him, but was unable to distinguish the separate fingers; the left pupil was also dilated and inactive to light.

One hour after admission chloroform was administered and Mr. Sydney Jones explored the wound. A crucial incision, through skin and muscle down to the bone, was made, having the bullet wound in its centre, and, hæmorrhage having been arrested, a finger was inserted, when it was found that there was no splintering of the bone, but a clear round aperture through which the bullet had passed. The wound, the central part of which was black and charred by the passage of the bullet, was thoroughly cleansed by means of a solution of chloride of zinc, forty grains to the ounce, and was covered temporarily whilst an examination of the left side of the face was proceeded with. An antero-posterior incision (of about an inch and a half in length) was made immediately over the point where the small hard body above mentioned was to be felt. The left malar bone and zygomatic arch were found to be much splintered, but only one or two small fragments were sufficiently detached to be removed. Embedded firmly in the bone, but projecting somewhat from it, the bullet was felt, and, after a short time, was extracted by forceps. It had preserved its cylindrical form, but showed deep spiral grooves on its surface, and, impacted in these grooves, small particles of bone could be seen. Mr. Sydney Jones then returned to the examination of the entrance wound, and succeeded in passing a bullet probe through from one aperture to the other, so as to transfix the head. The probe was not tightly

[1] THE LANCET, 1888, vol. ii., p. 728.
[2] Surgical History of the United States War, vol. i.

grasped, but could be freely moved in and out, and, to a slight extent, from side to side. A drainage tube was now fastened to the probe, and drawn without difficulty through the bullet track, which was well syringed with a 1 in 40 solution of carbolic acid, and the wounds dressed antiseptically with iodoform gauze and salicylic wool. The wounds were left freely open to admit of efficient drainage. The man bore the operation well throughout. Towards its close, however, the face became more congested, and the ecchymosis about the eyelids increased. There was but little hæmorrhage. Two hours after the operation the patient was sensible, but very restless, and complained much of deep-seated pain across the forehead. A morphia injection (one-sixth of a grain) was administered. Temperature 98°. Three hours later the temperature had risen to 99·8°. The patient was much quieter, and perfectly conscious. He seemed to be in great pain. Pulse 84, good.

Oct. 6th.—The patient was very restless during the night, and had but little sleep. The wounds were dressed again under spray at 1 A.M. (seven hours after the operation). Between this time and 6 A.M. he vomited three times, bringing up altogether about a pint and a half of dark grumous matter, mainly altered blood. He had another morphia injection (one-sixth of a grain) at 2 A.M. Pulse 80, regular. Temperature 99·4.°

7th.—The patient remained conscious all yesterday, and fairly quiet. There was no return of the vomiting. He suffered much from deep-seated pain in the head, both in the frontal and in the occipital regions; he also complained of severe pain in the right eye. The wounds were dressed again last night under spray; they both looked healthy; there was a fair amount of serous discharge, but no pus. Temperature 99°.

8th.—The wounds were dressed again last night, when the tube was without difficulty withdrawn, divided, and pieces of about two inches and a half each in length were inserted at the two extremities of the track. The passage was syringed with the 1 in 40 solution of carbolic acid, the fluid passing through almost clear. A small proportion of the fluid escaped through the nose and mouth. Both wounds looked healthy, and suppuration had not commenced. He remains in much the same condition; he has had a morphia injection every night. This morning the bowels were freely opened by the medicine. Temperature 99·2°.

12th.—The man was very restless, and at times delirious, yesterday. Throughout the night he was in a state of almost maniacal delirium, struggling violently, and talking incessantly and disconnectedly. Draughts containing forty grains of bromide of potassium, with fifteen grains of chloral hydrate, were administered three times during the night, but without effect until this morning. He is now sleeping quietly. There seems to be no increase of pain, and his temperature has not risen above 99·2°.

13th.—The wounds were dressed again last night. There was a little suppuration at each end of the bullet track. There is some sloughing in the centre of the crucial wound on the right side of the head—i.e., at the aperture of entrance; but none about the other wound. Temperature 98·8°. The patient is taking strong beef-tea.

16th.—The patient has had better nights, though he still requires morphia. He still complains much of headache, and his mind wanders at times. Vision with the right eye is wholly lost, and there is still so much conjunctival œdema that an examination is difficult. He can see to count fingers with the left eye. Temperature 98·4°.

18th.—The man's mind now constantly wanders; he has bad nights. He takes chloral and bromide mixture every four hours, besides the nightly injection of morphia (one-sixth of a grain). The drainage tube was to-day left out on the left side.

20th.—The patient is constantly rambling, and is restless and intractable at night. He sleeps badly in spite of the bromide and chloral, which he is still taking. The frontal and orbital pain has not been nearly so constant and severe of late. The wound on the right side of the head is now being dressed with hot solution of boracic acid. There is still here a sinus into which a probe may be passed for quite four inches—not large enough, however, to admit a tube except for about one inch and a half. From this sinus there is almost absolutely *no* discharge. The wound over the left malar bone is now entirely superficial, and was dressed to-day with zinc ointment.

24th.—The patient is now having but little sleep. He has been for the last few days in a state of almost constant restless delirium. It has been difficult to persuade him to take nourishment. He was to-day put on "fish" diet, and four ounces of whisky daily were ordered. Wounds both healthy; sinus on the right side slowly closing; the superficial slough on this side has separated, leaving a healthy granulating surface. Temperature 98·2°.

27th.—The mental symptoms do not improve. Dry cupping to the nape of the neck ordered. Wounds healing well; sinus on right side closing rapidly.

30th.—The patient has remained in much the same condition. He has had two or three sudden paroxysmal fits of maniacal violence. He still rambles at times, but at others has been able to answer questions rationally. He was dry cupped again this morning. It has only now been possible to examine his eyes satisfactorily. Right eye: There is no perception of light; the pupil is fixed and has an oval outline, being flattened from above downwards. The subconjunctival hæmorrhage and œdema have largely disappeared. There is complete anæsthesia over the whole of the front of the eyeball and consequent conjunctivitis, with a discharge gluing the lids together. There is complete paralysis as regards lateral movements of the eye, and the vertical range is very limited as compared with that on the other side. On ophthalmoscopic examination, no reflex was obtained from the right fundus; there was no visible detachment of retina, but probably there was blood clot in the vitreous chamber. Left eye: Vision defective. Corneal sensation distinctly dull; there is some conjunctivitis, and the pupil acts very sluggishly indeed, both to light and to accommodation.

Nov. 2nd.—No improvement in mental symptoms. A blister was applied to the nape of the neck yesterday.

8th.—There has been great improvement in the patient's condition. He has slept well for several nights without morphia. He still wanders at times, but is for the most part perfectly clear. He still complains of pain about the right orbit, and often also in the occipital region. He can only open his mouth to a slight extent.

From this time until Nov. 26th, when the patient was discharged, his condition has shown progressive improvement. He has been sleeping well, his mental troubles have disappeared, and he has been rapidly gaining strength. He still complains of pain shooting across the forehead from the entrance wound, and of a dull, aching pain in the right orbit. The condition of the right eye has not changed in any respect since Oct. 30th, except that superficial sensation has to some slight extent returned, and the conjunctivitis has entirely disappeared. With regard to the left eye, corneal sensation is now normal, the pupil acts quite naturally, and, as the patient has been supplied with glasses to correct his hypermetropia, vision is very fairly good. The man has almost entirely lost his sense of smell. A screw gag has been used at frequent intervals in order to overcome the ankylosis of the lower jaw, but without much success, as he is still unable to separate his teeth to more than a slight extent without causing severe pain in the region of the scar over the left malar bone. The wounds have quite healed, though the scars are tender.

Remarks by Mr. SYDNEY JONES.—In the above case the bullet, conical, half an inch long, and with a diameter of one-third of an inch, had passed through both orbits and the nose. The bullet was not altered in shape, and it retained its conical form, but was grooved pretty deeply in a spiral direction, especially towards its apex. Small pieces of bone were firmly fixed in the grooves. The bullet had passed obliquely from the right side downwards and forwards to the left malar bone, which it had comminuted. There was much chemosis of both eyelids. It is probable that on the right side, near the aperture of entrance, the anterior fossa had been perforated. There was much pain complained of, especially in the frontal, to a less extent in the occipital, region. His delirium indicated some cerebral disturbance, but his temperature never rose to any extent. Gross, in his "System of Surgery," says that "a bullet sometimes passes across the skull from one temple to the other without inflicting any serious injury upon the brain or other soft parts, the patient ultimately making a good recovery. Such an occurrence, however, is now much less common than formerly, during the use of the round bullet. After the battle of Waterloo a number of cases of this kind were treated successfully by the British?"

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, BRIGHTON.

A CASE OF LARYNGEAL GROWTHS; TRACHEOTOMY; THYROTOMY AND REMOVAL OF GROWTHS; RECOVERY.

(Under the care of Dr. E. G. WHITTLE.)

THE operations which are performed for intra-laryngeal growths are (*a*) intra-laryngeal removal by means of forceps from the mouth, aided by the laryngoscopic mirror, or (*b*) extra-laryngeal. (1) After thyrotomy, as in the case which Dr. Whittle records below; (2) supra-thyroid laryngotomy, by means of incision through the thyro-hyoid membrane; or 3) the infra-thyroid laryngotomy, removal through the tracheotomy wound. These methods were carried out in the years 1833, 1853, and 1863 respectively.[1] The first is specially adapted for the removal of the benign growths met with in children, where it is often impossible to employ the laryngoscopic mirror and forceps with success; also where the growths are multiple. It is recommended that tracheotomy be performed for a fortnight at least before the operation, in order that the patient may become used to the tube, and that no operation be performed until the patient is suffering from dyspnœa or dysphagia. The results of the operation, when successful,[2] show 14·58 per cent. of recoveries followed with perfect voice and respiration; Bruns[3] gave the following as the result of his investigations. In eighteen the voice again became normal or nearly so; in twenty instances it was completely lost in six, and reduced to nearly complete aphonia or extreme hoarseness in the others. But in a very large percentage the operation is followed by obstruction to the respiration, necessitating the use of a cannula. This in many instances appears to depend upon cicatricial contraction and narrowing of the larynx, which hardly any mechanical treatment is able to overcome, few patients possessing sufficient perseverance to attend long enough for its full trial. Oertel and Paul Bruns make three varieties of papillomata, and give the prognosis according to each. In a large majority there will be recurrences, especially in children, and operation at a later date will be again required. Published statistics are very misleading, few failures finding their way into the medical journals. Stoerk says that the best method is that which does not subject the diseased larynx to any great irritation; irritating applications are apt to encourage recurrences. Some of these are due to imperfect removal of the growths. From the description of the growth in this case, it probably belongs to the second of the three varieties mentioned by the authorities quoted, one of the characters of which is its slow recurrence, a variety of the growth usually met with in adults.

A female child, aged three years, was sent to the hospital by Mr. Graham, of Storrington, with the history of laryngeal obstruction, which had existed from early infancy, and had gradually increased; the dyspnœa had, indeed, occasionally been critical. Attempts were made with and without chloroform to view the larynx, but they were unsuccessful. Tracheotomy was performed by Dr. Whittle on Aug. 5th, 1886; thyrotomy was deferred in compliance with the parents' wishes. The child improved in health, but could not dispense with the tube.

On May 17th, 1887, the larynx was opened. An incision was made from the lower border of the hyoid to the upper border of the cricoid cartilage. The incision was deepened till the thyroid notch above and the crico-thyroid membrane below were exposed. The point of a scalpel was introduced through the membrane and the lower half of the thyroid divided. This not exposing the cavity of the larynx, the section of the thyroid was completed by a probe-pointed bistoury. A bunch of white fleshy bodies protruded, and were partly removed by forceps. The alæ being separated by retractors, the growths were found attached to the inner wall, lying on and above the vocal cords, which were indistinguishable. Forceps, scissors, and the spoon end of a director were used in their removal, which could not be completely effected without damaging the mucous membrane with which they were intimately connected. The operation was complicated by the violent reflex movements of the larynx, which, in spite of the free use of chloroform, recurred as soon as the growths were touched; also by the rapid oozing of blood which ensued on manipulation. The alæ were united by catgut; the superficial wound was closed by wire and supported by strapping. The upper part united, but the lower, which approached the old tracheotomy wound, gaped on the removal of the sutures. The tube was worn constantly until July 9th (fifty-three days), when it was left out for two hours. On July 14th it was out all night. After this it was worn irregularly—sometimes being out the whole night, sometimes the whole day. She was sent home without it on June 7th, 1888. In answer to inquiries, the mother wrote on Jan. 11th, 1889: "Dollie talks quite distinctly, but the tone is not quite as an ordinary child; it is rather low and somewhat husky, but very distinct. She never whispers."

[1] Brauers of Louvain; Pratt; Czermak.
[2] Erichsen, vol. ii., p. 713.
[3] Mackenzie, vol. i., p. 310.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Colectomy for Malignant Disease.

AN ordinary meeting of this Society was held on Feb. 26th, Sir Edward Sieveking, President, in the chair.

Dr. KENDAL FRANKS, surgeon to the Adelaide Hospital, Dublin, read a paper on Colectomy for Malignant Disease. It recorded two cases of malignant disease (cylindrical epithelioma) of the colon in which operative measures were employed to remove the tumours. The first occurred in a labourer aged forty-five, who was admitted into hospital on Feb. 12th, 1887, suffering from diarrhœa, abdominal pain, pyrexia, and a swelling in the left iliac fossa. An operation was performed on March 18th, and the tumour was found to be a breaking-down epithelioma involving the sigmoid flexure and part of the descending colon. The parietes were implicated. The colon and sigmoid flexure, with the growth and part of the abdominal wall, were excised. The lower end of the gut was inverted, closed with sutures, and returned; the upper end was brought out at angle of the wound in the loin, and an artificial anus made. The abdominal wall was closed with sutures. The patient died on the sixth day from exhaustion. There was no peritonitis, but the intestines were found in a condition of complete atony. The second case was in a man aged fifty-eight, who was admitted into hospital on Oct. 19th, 1888, exhibiting dyspeptic symptoms, diarrhœa, and a remarkably movable tumour below the umbilicus in the middle line. An operation was performed on Oct. 30th. An abdominal incision was made in the linea alba. The tumour was found to be an epithelioma surrounding the transverse colon near the hepatic flexure. The intestine on each side of the tumour was divided, and the tumour excised, with several glands, which were enlarged, between the layers of the meso-colon. The divided ends were sutured together with Gély's suture and returned to the abdominal cavity. On the sixth day there was a very copious motion per anum, and the bowels acted regularly afterwards. The patient was now in very good health, and had increased much in weight. From a consideration of the cases collected by the author which had hitherto been published, and which numbered fifty-one, it appeared that the operation had proved fatal in 40·8 per cent. In twenty of those which survived operation the disease returned in ten, and in the remainder the period which had elapsed was too short to draw conclusions from. One case was alive four years after operation. The author drew the following conclusions:—1. Colectomy rarely effected a cure. 2. As a palliative measure it was justifiable, and frequently demanded. 3. Recurrence usually took place in the liver or mesenteric glands, and death then was much easier than when the intestine was occluded. 4. The mortality after immediate suture of the intestine and after the formation of an artificial anus was nearly equal. 5. Immediate suture of the divided ends was preferable to the formation of an artificial anus. 6. The death-rate had been reduced in the later cases, and a further reduction might be anticipated. A statistical table, which accompanied the paper, gave details of the fifty-one cases hitherto published, including the operation and date, the seat of the disease, the length of gut removed, the treatment of the resected intestine, the situation and

length of the wound in the abdominal wall, the result, and the reference to publication. From this list it appeared that the first operation was done by Reybard in 1843, and was successful, the patient living for a year afterwards; and the list included cases by Messrs. Bryant, Marshall, Treves, Sydney Jones, Whitehead, and Pitts in this country.

Mr. BRYANT said the cases and table were a valuable contribution to a subject not yet solved. His first impression, when reviewing the whole number of cases, was against the operation. In malignant disease of the lower bowel we had to choose between colectomy, colotomy, and simply tiding the patient down hill, and he thought the conclusion was in favour of colotomy, which gave comfort to the patient, prolonged life, and gave all the benefit which colectomy appeared to do. On looking over the list, it would be seen that only one case in the fifty-one resulted in a cure; there were direct failures in 40 per cent., and indirect in almost all the others. The operation was therefore dangerous, and could not well be recommended. Colotomy not only gave complete relief, but death occurred comparatively painlessly from asthenia from secondary growths, the patient living for four, five, or six years after the operation; certainly three or four years might be fairly looked for if the operation were done before urgent symptoms of obstruction arose. Between the ages of forty and fifty it might be more justifiable to do colectomy, but after middle age colotomy should certainly be recommended.

Mr. TREVES was glad to hear Dr. Franks speak of colectomy as a palliative rather than as a curative measure. These were cases of cancer which grew slowly, and, when attention was attracted to them, were already of good size and situated in a vascular part abundantly supplied with lymphatics: if in the transverse colon or sigmoid flexure, a wedge-shaped piece of meso-colon could be removed, together with the disease; but, where the cancer attacked a piece of gut partly behind the peritoneum, complete removal was mechanically impossible. These cases, also, were instances of plastic operation, and the constitutional condition was altogether against the probability of rapid and firm union occurring. For six years he had not seen a case in which he would have dreamt of removing the colon for malignant disease. Only one case of the series presented no recurrence at the end of four years; and yet after colotomy they commonly lived for three or four years. As a palliative measure it had one point in its favour, for after colotomy a good deal of trouble was caused by accumulation of fæces in the gut distal to the opening. In Dr. Kendal Franks' last case this was got over, but was it worth the price that was paid for it? These cases threw light on resection of the bowel, such as was done for the cure of fæcal fistula. There was a remarkable difficulty in uniting certain parts of the colon; the transverse part and the sigmoid, being covered with peritoneum, were easy, but in the cæcum it was almost impossible, the non-peritoneal surfaces declining to heal, and in many cases an abscess formed outside the gut. He was glad that Dr. Franks had abandoned clamps of all kinds. Gély's suture was not a good one, for any suture which went through from the peritoneal surface to the lumen and thus acted on the seton principle was bad. The best was the Czerny-Lembert suture, a continuous stitch of mucous membrane with a large number of points of Lembert's suture uniting the serous coats.

Mr. BERNARD PITTS, referring to the case on which he had operated, said the patient returned a year later with a recurrence in the abdomen. He then did a second abdominal section, and resected large glands from the mesentery with another six or seven inches of bowel, closing the distal end and dropping it back into the abdomen. After nine months there was another recurrence, and the patient died of a communication between the stomach and transverse colon. In the summer of 1888 he operated on a case of malignant disease confined to the ileo-cæcal valve, excising the growth widely, cutting out the whole of the cæcum, and uniting the small bowel to a part of the ascending colon, closing the rest of the circumference of the latter upon itself. The patient collapsed on the eighth day, and pus was found behind the cæcum, a pinhole point of leakage existing in this situation. In the future he would be content with a partial operation, and leave an artificial anus. It was not quite fair to compare colectomy with colotomy, for they were done with a different object. Cancer of the bowel lent itself as easily to removal as cancer of any other part. The difficulty was to get the cases sufficiently early. The risk of cutting out the disease and forming an artificial anus was not much greater than that attending any other abdominal operation. A simple clamp was, he thought, of great advantage.

Dr. KENDAL FRANKS, in reply, said he could not condemn the operation wholesale as Mr. Bryant had done. Colotomy, though a good palliative and excellent in rectal cancer, gave no chance of cure. He thought if careful selection of cases was made so as to get them very early, with improved methods of operation, a much better result would be obtained than was shown in the table. He was under the impression that Gély's suture did not penetrate the bowel; the suture he himself employed only passed through the serous and muscular coats.

Dr. BENJAMIN HOWARD then gave a practical demonstration of his method of raising the epiglottis (fully reported in THE LANCET of Oct. 27th, 1888), using for the purpose a patient with an extremely well developed hyoid bone, and who had also an emaciated neck, so that the parts concerned could be well felt. The points under discussion were likewise illustrated by diagrams, and by a dissection of the hyoid apparatus of a horse.

CLINICAL SOCIETY OF LONDON.

Temperature in Tubercular Disease.—Impaction of Calculi in Ureters.—Chronic Enlargement with Distension of the Gastrocnemio-semimembranosus Bursa.

AN ordinary meeting of this Society was held on Feb. 22nd, Mr. Christopher Heath, President, in the chair.

In accordance with a new regulation, the following living specimens were shown between 8 and 9 P.M., and oral demonstrations given upon them:—

Mr. CHARTERS SYMONDS: Malignant Stricture of the Œsophagus.

Sir DYCE DUCKWORTH: (1) Uratic Tophi on the Scrotum; (2) Tophi associated with Psoriasis.

Dr. ARKLE: Spastic Diplegia in an infant aged nine months, the subject of congenital syphilis.

Dr. STEPHEN MACKENZIE: Congenital Nodding Spasm in an infant, in a lateral direction. The child was rickety, and the lesion, he thought, was allied to canine chorea.

Mr. WILLETT: (1) Sarcoma of the Tibia starting in the neighbourhood of a recent fracture following a kick; (2) Cancerous Tumour of the Breast in a woman aged fifty-four, which commenced either in the upper part of the periphery of the mammary gland or in some outlying portion of it.

Dr. FINLAY read a communication on a case of Tubercular Disease in which inversion of the temperature curve was an important aid in diagnosis. The patient was a child nine years of age, coming under his care in the Middlesex Hospital in March, 1886. She was stated to have had good health up to six weeks before admission, when she began to suffer from general malaise, with headache and loss of appetite. A brother had quite recently recovered from an attack of enteric fever, and the patient herself had been treated for enteric fever at another institution. On admission her pulse was 80; temperature 98·6° F.; respiration 23; tongue dry, red, and coated with a thin brownish fur; lips dry and coated with sordes. There was no eruption, and she had an occasional dry cough. The abdomen was distended and tympanitic, and the bowels confined. Some scattered coarse râles were heard over both sides of the chest. After a few days in the hospital the bowels became loose, the stools being light in colour and offensive. Towards the close of the case palpation of the abdomen gave the impression of some matting of the intestines, and a trace of albumen appeared in the urine. The temperature curve showed, with only two or three exceptions, low evening and high morning readings, the former ranging from 96° to 98·4°, the latter from 99° to 103·4°. She died on the twenty-first day of her stay in the hospital. From the history and other points, the first impression was that the case was one of relapse of enteric fever, but after a few days the diagnosis of tuberculosis was made, chiefly on account of the peculiarity in temperature above referred to. This conclusion was borne out by the post-mortem examination, tubercles being found in the peritoneum, lungs, pleura, pericardium, spleen, and kidneys. There was also evidence in Peyer's patches of previous ulcers, which had healed; and this, together with the history of the case, made it appear probable that a mild attack of enteric fever had preceded

the development of general tuberculosis. The difficulty in diagnosis in some cases between tuberculosis and enteric fever was referred to, and the opinion expressed that the inversion of the temperature curve was a point of great importance in differential diagnosis, especially where, as in the case related, it was so conspicuous and constant.—Dr. THEODORE WILLIAMS thought that any point of diagnosis between enteric fever and tubercular disease would be valuable, but the observations quoted were vitiated by the fact that the temperature was taken only twice daily; it should be taken at least three or four times in the twenty-four hours. In some cases the whole chart was postponed, and this apparently inverse type resulted from a delay of the ordinary rise and fall. The collapse temperature was quite as characteristic as the pyrexial, and in typhus inversus the same thing happened.—Mr. W. BULL had seen two surgical cases with inversion of temperature. Both were instances of gangrene of the foot, one associated with diabetes, and one with chronic nephritis.—Dr. COUPLAND had more than once noticed inversion of temperature in tuberculosis, and he quoted a case of acute phthisis which exhibited this peculiarity.—Dr. FINLAY, in reply, said he did not wish to insinuate that the temperature curve was always inverted in tuberculosis, but when it did occur it enabled diagnosis to be made from enteric fever.

Dr. RALFE and Mr. GODLEE related a case of Suppression of Urine caused by impaction of calculi in both ureters, and relieved by operation. A lady, aged twenty-six, had been under the care of Dr. Brookhouse of Brockley for acute rheumatism four years previously, and attacks of renal colic on both sides with hæmaturia. On July 31st, 1888, she had an attack of right renal colic, which passed off. It was followed the same day by an attack of left colic, which did not pass off, and when seen on Aug. 8th she had had complete suppression for fifty-three hours. The left kidney was exposed in the usual manner and incised. Very little urine escaped, and no stone was found, but on passing the finger down the course of the ureter a small stone was felt about two inches below the kidney. The ureter was drawn towards the wound and opened by a vertical incision sufficient to allow of the withdrawal of the stone; a tube was left in the kidney. The bladder and the lower ends of the ureters had been previously explored by dilating the urethra and introducing the finger. There was an immediate relief of the symptoms. Large quantities of urine were passed by the wound, but none by the urethra, for three days. On Aug. 13th there was a slight attack of right renal colic, and another on the 23rd. On the 15th the tube and stitches were removed, and on the 28th the wound had completely healed. On Sept. 3rd the right kidney was exposed and incised, but only a mass of gravel was found in it, and no stone was met with in the ureter, though it was traced down as far as the point where it crosses the iliac vessels. Blood appeared in the urine immediately after the operation, and also some gravel. By the 14th the discharge of urine from the wound was very slight, and the tube was accordingly removed, after ascertaining that the ureter was patent, by pouring some ink-stained fluid into the kidney, which the patient instantly passed per urethram. The bladder was also sounded, but no stone was struck. On the following day a small stone was passed per urethram. Between this time and the end of October the patient had three attacks of pain in the right side, one of which was rather severe. She is now, however, perfectly well. The peculiarities of the case, and the justification for the first and second operations were discussed by the authors.—Dr. GOODHART said that these cases had been taken out of the physician's hands, and opium and belladonna were almost things of the past. One of the calculi was far too small to have caused obstruction, a very large element in the production of which must have been muscular spasm. The presence of a stone in the other ureter, however, justified operation.—Mr. BRUCE CLARKE had measured a considerable number of ureters, and found the tube was usually narrowed two inches below the kidney. He ascertained the perviousness of the ureter by passing down a small catheter with porcelain tip. The calculus, being small and rough, was of the nature to excite spasm.—Mr. HEATH said the smaller calculus could scarcely produce blocking by any other way than spasm. He asked members present for their experience as to the feasibility of probing the male ureter. He failed to see why massage was performed with the patient on her hands and knees.—Mr. GODLEE replied that he did not know why this position was adopted. The condition of acute suppression determined the adoption of immediate operation. He had found catheterisation of the ureter a difficult procedure.

Mr. QUARRY SILCOCK described three cases of Chronic Enlargement with distension of the Gastrocnemio-semimembranosus Bursa, which were treated by partial excision. The subject was brought before the Society because this method of procedure seemed to be rarely practised, and to be efficacious in its results. The necessity for some such method arose from the fact that there appeared to be but slight natural tendency to effect a cure in this class of cases, the bursal walls growing gradually thicker and the distension greater—eventually, perhaps, the tumour becoming solid. In the first case narrated the bursal swelling had been noticed nine months, and the patient was unable to work in consequence. The tumour was cut down upon, freed from surrounding structures, a ligature of chromicised catgut placed around its pedicle, and the remainder cut off. The patient was discharged from the hospital on the fourteenth day after the operation. The treatment of the second and third cases related was similar to that of the first; in the latter the pedicle of the bursa was not ligatured, its walls being excised as far as was possible. Strictly antiseptic precautions were adopted in each case. This plan of treatment should be limited to cases in which the condition was independent of disease of the knee-joint, in which it was chronic, and, if time was of no moment to the patient, to those in which splint fixation, aspiration, counter-irritation, &c., had been tried, and it should never be practised unless with the strictest antiseptic precautions.—Mr. MORRANT BAKER had heard of and had seen bad results follow tapping of these cysts, which ought not to be operated on unless the symptoms calling for their removal were very urgent.—Mr. HEATH inquired if the bursæ communicated with the knee-joint, and if he would venture to operate if he knew such communication existed. He himself was very shy of meddling with these cases.—Mr. SILCOCK said all three cases communicated with the joint. In two of them all treatment had failed, and the patients could not go on with their work owing to the size of the swellings.

MEDICAL SOCIETY OF LONDON.

Macrocephalus and Lipomatosis Neurotica.—Sporadic Cretinism.—Infantile Paralysis.—Vicious Union of Metacarpal Bone.—Wound of Median Nerve.—Subcutaneous Rheumatic Nodes.—Congenital Cyst over Anterior Fontanelle.—Ulceration of Mouth.—Excision of Knee by Vertical Incision.

THE meeting of the above Society on Feb. 25th was a clinical evening. The President, Sir W. Mac Cormac, was in the chair.

Dr. ANGEL MONEY showed a case of Macrocephalus and Lipomatosis Neurotica. Tremors and splay feet were also present. The head measured twenty-three inches and a half in circumference; the subcutaneous fatty tissues were greatly overgrown; the muscular system very ill developed; walking and standing were impossible, but speech was fairly good. The knee-jerks were exaggerated, but there was no rigidity and no ankle-clonus. The child's weight was 4 st. 4 lb., but her height was only 3 ft. 6 in.

Dr. MONEY also brought forward a case of Sporadic Cretinism in a child, aged three years; the chief interest in the case being a considerable bossing of both parietal bones, giving rise to a natiform skull. This bossing might have been due to the bad feeding, to syphilis, or to the same cause as the cretinism; it was possible that congenital syphilis might be an occasional cause of cretinism.

Dr. HERRINGHAM showed a girl aged thirteen with old Infantile Palsy of the Left Arm. The muscles affected were the pectoralis major and probably minor, deltoid, probably supra-spinatus, infra-spinatus, probably the remaining shoulder muscles, triceps, and muscles of the hand. The serratus magnus was also lost. The flexors of the elbow and the extensors of the wrist and fingers acted, though weakly. The flexor sublimis was also capable of slight movement. Most cases of this disease were exhibited to show distribution of paralysis according to function. He thought the exceptions to this plan were more numerous than were supposed, and he showed this one as such. The muscles in this case were paralysed rather according to their geography than according to their functional co-operation.—

Dr. BEEVOR said the case was perhaps somewhat against the idea of functional localisation in the cord; the whole brachial enlargement appeared to have suffered, but some muscles had recovered slight power.—Dr. A. MONEY thought that the amount of damage was so great that the case could not be used as an argument against functional localisation. The structures in the cord in which the functions were represented were not arranged as a mosaic, but overlapped one another.—Dr. HERRINGHAM replied that the case had lasted twelve years; there was complete loss of power at the top and bottom of the arm with partial recovery between. The supinator longus acted fairly.

Mr. M. SHEILD brought forward a case of Vicious Union of Metacarpal Bone, remedied by operation. A fracture of the right fifth metacarpal bone was sustained eighteen years previously, producing angular deformity. The parts were rendered exsanguine by Esmarch's bandage, and a V-shaped piece of bone was removed with a chisel; the fragments then were drilled and wired together. The bone being very hard, much bruising to neighbouring tissues resulted, and one of the tendons of the little finger sloughed. Results of similar operations on the femur were often unsatisfactory.—Mr. ROSE had recently operated on a case of vicious union of the forearm; there was bad position and fusion of the bone, and the soft parts came much in the way when division was attempted.—Mr. SHEILD remarked, in reply, that he hammered down the wire on the bone and left it there.

Mr. ROSE showed a patient, aged thirty-nine, who had sustained a wound of the median nerve two inches and a half long above the left wrist-joint from the explosion of a soda-water bottle; it healed in three weeks. Two months later the scar was cut down on; no fragments of glass were found, but the nerve was adherent to surrounding structures. This was set free, and a fibro-neuroma which had developed at the point of injury was dissected off. For a fortnight afterwards the tenderness and numbness which had previously existed almost disappeared, but a slight fainting fit occurred, followed by momentary delirium. Two months after the first operation there was excessive sensibility of the cicatrix, pain and sleeplessness, with numbness of the hand and fingers. Five days later the diseased piece of nerve was excised for nearly an inch and a half, and the ends carefully sutured together; in four days more sensation had returned, and the wound quickly healed, there being less numbness and tenderness. Seven weeks after this the patient was seized with violent pain in the shoulder and neck, and he could not move the arm from the side. Touching the cicatrix produced a kind of epileptiform convulsion; this was relieved by bromide of potassium. Seven months after the injury the nerve was cut down on and stretched two inches above the elbow; two days afterwards the scar had lost its sensibility, and the arm could be moved without pain; but this improvement was only temporary, and, as the previous symptoms returned, in three weeks time the nerve was again exposed and a quarter of an inch excised. The wound healed without suppuration as all the others had done, and the patient was discharged nine days later, being able to move his arm fairly well, and complaining of no pain or tenderness about the region of the original cicatrix. Sensation in the fingers was steadily improving.—Dr. THEODORE WILLIAMS asked if the pupils were enlarged or uneven.—Sir W. MACCORMAC inquired if the patient had suffered from fits before the reception of the injury.—Mr. W. PYE desired to know the nature of the enlargement of the nerve which was dissected off. He related a case in which a nerve became strangulated in scar tissue, and was relieved by dissecting the latter away.—Dr. BEEVOR asked if there was pain at the seat of the lesion immediately before the development of the fits.—Mr. H. ALLINGHAM described a case in which he had relieved a nerve that had become palsied from being buried in callus.—Mr. ROSE, in reply, said there was an inequality of the pupil; no fits occurred before the operation; the fibrous enlargement was of an inflammatory nature, and was dissected off without breaking the continuity of the nerve. The patient had pain about the arm and shoulder before the fits.

Dr. ARCHIBALD GARROD showed a boy aged fourteen, one of whose grandmothers had suffered from rheumatic fever. He had rheumatic fever four years ago, with loud presystolic and systolic mitral murmurs. For five months rheumatic nodules existed in various situations, and were especially well developed on the knees and elbows, where they were arranged in groups, and were of considerable size. The only other rheumatic manifestation observed during the present attack was slight stiffness of some of the joints at the commencement, which quickly yielded to treatment. In spite of the serious cardiac lesion and the extensive eruption of large nodules, the patient had been in apparently good health throughout. The nodules were composed of fibrous tissue, and in structure resembled cardiac vegetations.

Mr. PITTS exhibited a boy, aged nine, with a Congenital Cyst over the situation of the anterior fontanelle; it was of about the size of a hen's egg, and was entirely devoid of hair. The fontanelle was apparently closed, but a slight depression could be felt in the bone; the cyst was slightly to the left of the middle line. For three months the boy had been subject to fits, and the mother stated that he did not lose consciousness, but suddenly felt sick, and had spasm of the right foot, which extended to the arm and right side of the face. The child had suffered from similar but more intense fits between the ages of one and three. The diagnosis rested between dermoid and meningocele that had become shut off from the cranial cavity. Pressure on it produced no inconvenience to the patient, and there was no impulse.—Sir W. MAC CORMAC referred to a dermoid cyst in St. Thomas's museum which was situated in the middle line and pulsated, being mistaken during life for a meningocele.—Mr. W. PYE saw little reason to suppose that the dermoid was connected with the fits.—Dr. BEEVOR suggested careful observation of the commencement of the fits, and if they commenced in the foot he would advise operation.—Mr. PITTS said he proposed to explore the swelling and remove it, and then carefully examine the subjacent bone.

Mr. SHEILD showed a case of Ulceration of the Tongue and Mouth, cured by opium. A carpenter, aged fifty-six, had suffered for three years from obstinate ulceration of the sides of the tongue and gums. The affection varied in severity from time to time, but was always a serious trouble, and sometimes prevented him from eating or speaking. No cause was attributed for the occurrence of this malady. He had been a temperate man, and had never suffered from syphilis, or been employed in glass-blowing, or was immoderately fond of pipe-smoking. He had, however, been living in a poor way, and his general health had deteriorated greatly. A variety of treatment had been adopted without relief. On examination, the man looked pain-racked, worn, and haggard. There were marked fetor and salivation. The left side of the tongue was superficially ulcerated in several places, the ulcers being covered with débris of food and superficial slough. The right side of the tongue was less affected. The gums were ulcerated round the teeth, and the posterior molars were loose. The mucous membrane was healthy, excepting in the situation of the ulcers. The glands beneath the jaw were enlarged. The ulcers were acutely painful, and the man had to subsist upon fluid nutriment, which he swallowed with difficulty. For three weeks the tongue was treated without any benefit. The remedies employed were small doses of blue pill and colchicum, potassium iodide, and tonics; locally, solutions of cocaine and antiseptic mouth washes. A solution of chromic acid seemed only to aggravate the malady. After three weeks the use of opium was commenced; an opium pill of one grain was administered thrice daily, and a simple carbolic mouth wash used locally. In three days the pain was much less, and the ulcers were decidedly more healthy in appearance. In three weeks the ulcers had entirely healed, the only sign to indicate their previous presence being the glazed appearance of the sides of the tongue and the loose teeth. The man, being able to eat and drink freely, had wonderfully improved in appearance. The use of opium in this case was suggested by a paper read by Mr. George Pollock and published in the *British Medical Journal* of April 26th, 1884. There he narrated a case very similar to the above, though much more severe, where the effects of opium were most beneficial. His patient had undergone a variety of treatment, including the application of nitric acid, by an eminent authority. The action of opium was difficult to explain in such cases; its undoubted efficacy in painful and sloughing ulcers was perhaps hardly enough appreciated in the present day.—Dr. THEODORE WILLIAMS spoke of the value of opium in ulcers of various kinds; he had seen rapid benefit follow its employment.

Mr. HERBERT ALLINGHAM showed three cases, two of which were instances of Excision for Tubercular Disease of

the Knee-joint by the vertical central incision, and one was a case of Traumatic Division of the Ligamentum Patellæ, with considerable separation. The cases of excision had made perfect recoveries, and ample room was found by this method to deal efficiently with the diseased bones and synovial membrane. Drainage had been provided at the upper part of the joint posteriorly. When the patella required removal, it could be as easily effected by this incision as through any other, being simply scooped out with a gouge. Excision, when necessary, could be done as well as erasion.

CLINICAL SOCIETY OF MANCHESTER.

AT the meeting on Jan. 10th (Dr. Simpson in the chair) the following cases were submitted.

Compound Dislocation of Ankle.—Dr. J. EAMES showed a patient who had recovered from compound dislocation of the ankle with perfect movement, and attributed the excellent result to the thorough manner in which the joint, at the time of injury, was irrigated with corrosive sublimate solution (1 in 1000). In three months the patient was able to walk five or six miles, and was free from lameness.

Enlarged Spleen.—Dr. OWEN introduced a case of enlarged spleen with anæmia in a boy who had been under observation for above three years. The boy was five years of age when he was first brought to the hospital. Shortly after the first visit paralysis of the soft palate occurred. The tonsils were enlarged, and also the upper cervical glands. The whole of the symptoms were considered to be the result of an attack of diphtheria. The spleen continued to enlarge until it reached the level of the umbilicus. Slight dilatation of the left ventricle of the heart occurred during the progress of the case, and a systolic apex murmur had been noted with marked accentuation of the pulmonary second sound; this murmur was audible only in the recumbent posture, a peculiarity which Dr. Owen had frequently observed in conditions of anæmia and debility. In this case great improvement had taken place under the prolonged administration of iron and arsenic.

Hydronephrotic Kidney.—Mr. STANMORE BISHOP showed a patient from whom he had removed a hydronephrotic kidney twelve months since. The wound healed rapidly, with the exception of a small sinus leading down to the ligatures, which were of Chinese twist. After waiting six months, Mr. Bishop cut down upon the ureteral ligature and removed it. It was found unchanged. The sinus still persisted, but last month it finally closed. The urine now passed was of sp. gr. 1022, and contained no albumen, casts, or crystals, and was of normal quantity. No signs of renal insufficiency had shown themselves at any time. The case was originally reported in THE LANCET, May, 1888.

Hydatid of the Liver.—Dr. RAILTON introduced a girl, aged fourteen, with a hydatid tumour the size of a cricket-ball, exactly placed in the middle line in the epigastrium. There was no thrill obtainable. It had been observed for the last four or five months, but had given rise to no pain or other disturbance. Dr. Railton had drawn out with a small subcutaneous syringe a little of the hydatid fluid a fortnight previously, and the tumour had already apparently begun to shrink.

Disseminated Sclerosis.—Dr. RAILTON also showed a little girl, aged nine, suffering from disseminated sclerosis. She was born naturally, cut her teeth in good time, and had never suffered from convulsions. She did not walk until three years old, and it was then observed that the girl was as awkward as at present; she was somewhat spastic, the knees and toes turned inwards, and there was a slight overlapping of the legs during progression. The hands had the characteristic large tremor, greatly increased upon attempting to do anything requiring the least exactitude, such as the conveying of a glass of water to the lips. The legs, when hanging down without support, were perpetually in motion, with jerkings very like the irregular movements of chorea. All movements ceased entirely on the limbs being allowed to rest. Although weak and uncertain upon her legs, she was able to stand with her eyes shut. A peculiar expression of face was perceptible, and a tendency to cry and to laugh unreasonably had been noticed in the wards. Her speech was syllabic, drawling, monotonous, and weak, dying away at times at the end of a word; the knee jerk was present, but restrained by spasm. There was no nystagmus or vertigo, sensation appeared perfect, and the faradic reactions were everywhere normal. The muscular sense seemed to be slightly impaired. The bladder and rectum were unaffected. No family history of neurotic disease could be elicited, and there were five other perfectly healthy children of the same parents.

A meeting of the Society was held on Feb. 19th, Dr. Leslie Jones, President, in the chair.

Constitutional Syphilis.—Dr. SIMPSON showed a boy, nearly fourteen years of age, who had suffered from constitutional syphilis for several years. There was destruction of the soft palate, with contraction of the faucial opening and complete destruction of the tongue. There was great difficulty in obtaining any light on the origin of the disease, but what history there was pointed rather to acquired than congenital syphilis.

Spina Bifida.—Mr. STANMORE BISHOP showed a case of spina bifida.

Massage.—Dr. WAHLTUCH read a paper on massage. After a short historical review, he explained and demonstrated the various manipulations in massage, and the passive and active movements. He pointed out the diseases in which massage is of undoubted benefit, illustrated by personal observation of cases—viz., rheumatism, neuralgia, chorea, obesity, arthritic joint affections, paresis, narcotic poisoning, abdominal and pelvic swellings, eye diseases, and eczema. In many affections he recommended the joint administration of electricity with massage.

Notices of Books.

Epitome of Surgery; being a Complete Compendium of the Science and Art of Surgery. By RIDLEY DALE, M.D., M.R.C.S.E., &c., Surgeon to the Hospital for Foreign Seamen, Sunderland. London: H. K. Lewis. 1889.—The title of this book explains the purpose for which it has been written. It is not a treatise on surgery, but a "compend," a "remembrancer," a condensed abstract of the best text-books and monographs. It is written for the benefit of students who are just about to present themselves for their Final Examination in Surgery, and will be found very useful by those who have previously studied diligently a good text-book, or have followed carefully a good course of lectures on surgery. But it will not replace the ordinary text-books, nor will students find in it a royal road to success at examinations. And it is just because we cannot but fear that such books are seized upon by some men as short substitutes for larger books, as lessening the labour of learning, that we always view them with a certain amount of regret. The brief study of a "remembrancer" is not a good substitute for steady, regular work, even although it may enable a man not otherwise fitted to pass an examination. Looking at the book itself, however, we can only express approval of its general characters. It consists of nearly 500 closely printed large octavo pages. It is by no means a summary of all surgery that can be carried in the waistcoat pocket. It is full, and in the main very accurate. Of course much has been sacrificed to brevity, and as we read we cannot forget that the book has been written for examination purposes. But great pains have been taken to make the work complete and reliable, and great credit is due to Dr. Dale for the care he has taken in its preparation. We think that a freer use of different types would have greatly added to the utility of the book.

Masso-therapeutics, or Massage as a Mode of Treatment. By WILLIAM MURRELL, M.D., F.R.C.P. Fourth Edition. Pp. 236. London: H. K. Lewis. 1889.—A change of title with the issue of a new edition is now becoming so frequent that it would be scarcely worth noticing were it not that the author gives a new definition or limitation of the term. "By massotherapeutics I mean the scientific aspect of the subject; massage, that is, simply as a therapeutic agent, and not massage as a means of earning a living or as a

modified form of hotel-keeping." To attain the "scientific aspect" Dr. Murrell has given more minute directions for the performance of the different manipulations, and has added several new illustrations, some of which appear very familiar. He is clearly of opinion that to be scientific it is not necessary to be ponderous. The book in its present form is as free from dulness as ever, and reaches its goal by easy stages with amusing anecdotes and notes of cases.

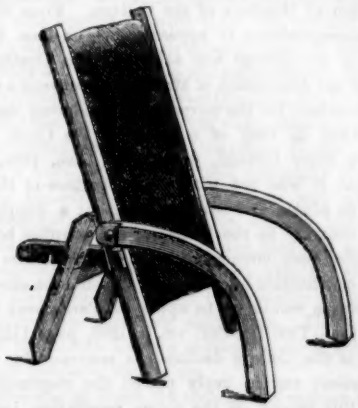
Modern Methuselahs. By JOHN BURN BAILEY. London: Chapman and Hall. 1888.—This work consists mainly of an account of a large number of persons, many of whom are historic characters who have reached to near upon a hundred years of life; the descriptions given taking specially into account such points in their characteristics and mode of living as have a bearing upon their ripe old age. Amongst the lives recorded are those of St. Anthony the Great, who was born in 251 A.D.; of Titian, who is dealt with both as a painter and as a man; and amongst the more modern ones are those of Mrs. Mary Somerville and Sir Moses Montefiore. Perhaps the most interesting part of the work is the chapter dealing with the causes of long life; for although the writer is unable altogether to solve the mystery he discusses, yet he treats his subject fully and sets out a large body of information dealing with it. On the whole, it seems evident that moderation in eating, drinking, and in living, in all its phases, is conducive to long life. Those who are in a comfortable position, and who are of average intelligence, have more chance of lasting long than those who occupy positions at either extreme in both these respects. Earnest and ungrudging exercise of the mental powers is, however, shown to be no bar to old age, and at times to favour it; but as a rule, whilst a moderate use of the faculties tends to health and endurance, excessive use of them has often—indirectly, if not directly—had a reverse effect, exhaustion resulting in place of that vigour which follows from a free but wholesome use of every part of the body. Certain it is that, under existing conditions of life, the majority die prematurely; but even now, with the extension of knowledge as to the principles of both public and individual health, a tendency to the lengthening of life is already in progress. The biographies included in the volume are in themselves of interest, and, dealing as they so largely do with persons who have occupied positions of prominence in their respective spheres, they afford proof that activity of mind and body is favourable to that "long-lasting" which the author shows in his work is within the reach of many more than those who attain it in the present generation.

Plumbing Practice. By J. WRIGHT CLARKE, Plumber. Illustrated. Pp. 356. London: "The Engineering and Building Record" Office. 1888.—This book is based on a number of papers contributed by the author in 1883-87 to the *Engineering and Building Record* of New York. It is evidently the production of a man who not only understands the principles on which good sound work depends, but also how these can best be carried into practice. The earlier chapters, relating to metals, pipes, and joint-making, appear to be specially designed for working plumbers; but the succeeding ones, in which he treats of sewerage, drains and traps, baths, basins, urinals, and soil pipes, contain much information which could not fail to be useful to members of our profession when called upon to advise in questions of house sanitation. His views on such subjects as drain ventilation, traps, and waste pipes are eminently practical. The last four chapters are devoted to hot-water boilers, fittings, and circulating apparatus, and are calculated to make one very cautious in adopting any system unless under good practical advice. Some of the instances the author adduces the mistakes committed in this branch of plumbing are amusing and instructive, and fully justify his opinion that the plumber should not only have the skill to execute, but also the knowledge requisite to plan or design. The book is very fully illustrated, and has the great advantage of a copious index.

New Inventions.

THE BED ARM-CHAIR.

THIS invention aims at providing a bed-rest, by means of which invalids or luxurious folk may have the benefit of a convenient support in bed whilst reading or partaking of refreshment. Its simplicity of construction may be seen by a glance at the accompanying illustration. The arms, when not required, may be thrown back, and the chair can be given any inclination by the invalid passing his hand behind



and shifting the projecting bar, which is provided with notches to fit into the transverse rail. It is furnished with cretonne, which, being laced to the uprights, can be removed and disinfected if necessary. The whole apparatus, when not in use, may be folded into a small compass, and its cost is very moderate. The maker is W. Hally Burton, 76, Adelaide-road, N.W.

AN IMPROVED TOBACCO PIPE.

WE have been favoured with a specimen of a tobacco pipe constructed upon scientific principles, with a view to get rid of the moisture and attendant accumulations that ordinarily foul a pipe, and not only detract from the pleasure of smoking, but which are objectionable from the medical point of view. The patentee of this invention is Mr. Joseph Bennett, of Great Tower-street. The pipe is so made as to contain in its stem a chamber constructed of a spiral fixed into the mouthpiece, upon which spiral can be adjusted a specially prepared tube composed of woody fibre and carbon, whereby the moisture and impurities are absorbed as the smoke travels along the spiral channel. The method is very ingenious, and the construction of the pipe excellent. Moreover, we find that the object in view is very thoroughly attained, the absorbent material becoming well impregnated after sufficient use; whilst the smoke is cool and dry, losing none of the aroma of tobacco, but only the unpleasant pungency that smokers know too well. The only drawback—if it be one—is that this pipe requires a certain amount of personal attention on the part of its owner, and the daily renewal of the absorbent tube, but the smoker will perhaps not begrudge this in view of the advantages he will derive from the use of such a pipe.

THE LANCET.

LONDON: SATURDAY, MARCH 2, 1889.

AN extraordinary meeting of the Council was held at the College on Feb. 21st (vide THE LANCET, page 405). The main subject of importance for discussion was a burning one—namely, the question as to the right of Members of the College to meet in their own College, and to formally discuss therein matters of collegiate interest. We must refer our readers to page 400 of the last issue of THE LANCET, where will be found the correspondence between the President of the College and the Secretaries of the Association of Members of the College. From this published correspondence it appears that on Jan. 10th the Council of the College was asked by the Central Committee of the Association of Members to convene a meeting of the Members for the purpose of considering the action to be taken in view of a letter of the Clerk of Her Majesty's Privy Council, dated Nov. 27th, 1888, to the effect that it was not within the province of the Privy Council to advise Her Majesty to grant a Supplemental Charter contrary to the wishes of a governing body, and that, under such circumstances, if the Members desired that the constitution of the College should be altered, the proper course would be to apply to Parliament for that purpose (vide THE LANCET, vol. ii. 1888, page 1153). The Council of the College declined to convene the meeting as requested, and in reply placed the responsibility of making this request on the acting secretaries, instead of the General Association of Members. Thereupon the Association of Members determined to convene the meeting; and accordingly convened it for Feb. 28th, at 3 P.M., at the College. The notice that the meeting would be held was coupled with a request addressed to the President for the use of the theatre or the lower library of the College by the Fellows and Members petitioning. This request was refused by the Council, who finally resolved that the College should be closed from the evening of Wednesday, Feb. 27th, until Friday morning, March 1st, and that a notice to this effect be posted in the hall of the College. The notice in the College hall was worded as follows:—

"A meeting of the Fellows and Members of the College having been convened for Thursday, the 28th inst., at the College, in violation of the bye-laws, notice is hereby given that such illegal meeting will not be allowed, and that the College will be closed on that day.

"By order of the Council.

"21st February, 1889." "EDWARD TRIMMER, Secretary.

The Fellows and Members of the College are thus about to see one of the points in dispute—viz., *their right of meeting in their own College for the discussion of collegiate matters*—fought out openly and fairly between the Council and the Members' Association. We may reasonably hope that the Fellows' Association will join in this issue, for the disability to hold meetings at their College applies as much to Fellows as to Members. At all meetings at the College a Fellow speaks without an effective vote; and Fellows are obliged to hold meetings on all sides of the square in Lincoln's-inn-fields, *except on the side on which their own College stands.*

Granting that the Council of the College may be acting strictly within their legal right in declining to permit an "unauthorised" meeting of Members within the walls of the College, we maintain, in equity and in ethics, that, inasmuch as the whole list of bye-laws have never received the sanction of the body politic and corporate, it is unreasonable to expect the strict observance of these bye-laws, past, present, and future, nor can they be ever deemed binding on Fellows and Members, who have never had voice or vote in their framing.

Opinions may differ as to the precise and proper mode of procedure in a contest to obtain the right of public meeting and of effective voting on the part of the body corporate. That is rather a matter of legal procedure; but the exclusion of the body politic and corporate from the making or approving of bye-laws is a grave and essential blot in collegiate history. If Bye-law 17, on which the Council base their present action, had been submitted to the body corporate, it is certain that it would not have been accepted; and all law-abiding Members of the College recognise the *rule of majorities*, and well know how to correct and readjust measures to the requirements of present times. But the Council in the year 1889 persist in enforcing a stringent bye-law, obtained in 1831 in antagonism to the views and opinions of a large number of persons deeply interested in the well-being of the College and in the status of its Members. Have the dissentients any course open to them but meek subservience or determined opposition? We have advocated compromise on the part of the Council; we think it most impolitic, and not beneficial to the interest of the College of Surgeons of England, that earnest yet moderate reformers should be obliged to have recourse to extreme measures because they champion the cause, dear to the heart of every Englishman, of the right of conducting their own affairs.

There can be but one issue to this conflict: the Council will be compelled to yield in the long-run. By a dignified and graceful acceptance by the Council of the principle of the reforms sought by the Fellows and Members, much further needless controversy can be averted, many painful incidents prevented, and peace and quietness restored to the College. We shall be spared also the necessity of again noting in our register of events that the Council of the College, in anticipation of a meeting convened by the Members within their own College, thought it advisable to discountenance the meeting, as well as to adopt the precautionary measure of closing the doors of the College on that day. So natural is the desire on the part of the Members to enter their College, and so unnatural is the welcome vouchsafed by the Council, that we may be pardoned for reminding the members of Council of a familiar quotation:

"Naturam expellas furca, tamen usque recurret."

Meanwhile there is a tardy but constitutional way of expediting reform within the reach of the present electoral body: it is to spare no pains in preventing those members of Council whose opinions are known to

be unfavourable to reform from giving further opposition, and to replace them by men whose views are in current harmony with the requirements of our day.

APART from all debatable points on the hospital question, there are at least two convictions which almost every speaker on this subject gives expression to, and which we cannot too clearly emphasise. The first of these is that of the enormous and unhealthy development of the Out-patient Department of hospitals; a second is the mushroom-like growth of Special Hospitals. The first point—the great and unhealthy development of the out-patient department—was well brought out in the excellent discussion which followed the reading of Dr. SUTHERLAND'S admirable paper at Glasgow, and which will be found well reported in the *Glasgow Medical Journal* for February Dr. CAMPBELL BLACK testified, from a long experience in Glasgow, that there are "far too many people treated in the Glasgow hospitals." He added with much force and truth "that a certain class of practice—I mean the working class practice, in which practitioners have made respectable competencies on 1*s.* visits and midwifery fees of 10*s.* 6*d.*—has almost entirely disappeared. These people are now treated at hospitals, and get much of their midwifery done through institutions." These fees may appear small and insignificant to many of our readers, but it must be admitted that they are better than utterly pauperising and gratuitous attendance on the poor; and it must be remembered that in Scotland many practitioners, if not most, do not supply medicines, so that the patient has to reckon with the druggist as well as with the medical man. Dr. ERSKINE, in the course of his able paper on the abuse of our medical charities, quoted Mr. NIXON, of the London Hospital, as stating that the system of inquiry had excluded 50 per cent., notably in the special departments; and Dr. WATTS, of Manchester, to the effect that a few years ago the percentage of persons relieved gratuitously at hospitals and free dispensaries was 42½ per cent. It is fair to suppose that, if 50 per cent. of the people relieved at the London Hospital are found to be not fit cases for relief, a much larger proportion of applicants in more favoured districts will prove unfit. It would be useless to dwell on a point so universally admitted by hospital reformers were it not that the evil is continually growing. It is to more purpose to inquire why it grows, and what are the influences which resist all protest. The explanation is to be found in two or three facts. The hospital managers delight in large statistics, and think that they tell well in the annual report, and strike the public. Out-patient relief costs little and tells much. True, it injures and robs medical men, and it demoralises and pauperises the patient. But these are to a large extent hidden and unexpressed evils, and they are quietly tolerated, if not encouraged. Then we cannot altogether deny that the medical staffs of hospitals and dispensaries encourage the out-patient department. We have an ever-increasing number of medical men in the consulting ranks of the profession who have to depend for their practice and for their reputation for a few years on work among out-patients. They have neither time nor inclination to attend to more than the strictly professional aspect of the cases that come before them. The more the numbers, the more the material for teaching, and the greater the chance of finding something interesting. We are not disposed to be too hard on this class, who quietly encourage and uphold the great out-patient department. We appeal confidently to them to consider the proportions to which this evil has attained, so that a medical man in one of our largest cities has to lament "the almost disappearance of working-class practice." Our young consultants and hospital physicians and surgeons will not be insensible to this remark, made in no whining tone, but in a spirit of independence, and with a just sense of grievance.

The managers of our hospitals must make up their minds that a great battle is going to be fought on this question. We believe that there will be no lack of support for hospitals if the administration of them is just and prudent, as well as humane. But if it is otherwise, and if hospitals lend themselves to careless and demoralising accommodation to people who ought to provide their own medical attendance, they will find that their subscriptions will fall off and charity itself will become more and more critical. Hospitals, as our correspondents are constantly urging, are for the poor in their distress. It is not a mere wage question; and here we differ somewhat from Dr. CAMPBELL BLACK. A man with 40*s.* a week, with a large and unhealthy family, or unhealthy himself, may be poorer than one with 25*s.* who is healthy and whose children are few and strong. Disease is a costly and impoverishing thing, to an extent not yet realised. But we are entirely with Dr. BLACK in thinking that men should pay their doctor as they discharge their other pecuniary obligations. There must be an end of the notion that for ordinary medical attendance people may pauperise themselves.

Another point on which the consensus of opinion is strong and complete is that Special Hospitals are overdone, and should no longer have any encouragement from the benevolent. A very few hospitals may be excepted from this sweeping rule, for the sake of the good they have done before the creation of special departments in our general hospitals. But the rule stands good. Special hospitals are worked with a preponderance of personal influence which is undesirable, and they are costly in their administration. To crown all, they are superseded by the creation of Special Departments in our various hospitals. The time has come when they should be specially discouraged, and every medical man who promotes them may be asked to do so at his own charge.

A FEW months since a very interesting paper was read before the Epidemiological Society by Dr. DAVID BRUCE, of the Army Medical Department, on the Epidemic of Cholera in Malta during 1887, and now an official report on the same subject has been issued by Professor S. L. PISANI, M.D., chief medical officer to the Government of the island. Dr. PISANI'S report deals at some length with the symptoms and pathological appearances of the disease and other interesting matters, but the greater part of the document relates to the history of the epidemic and its probable causation.

Cholera has prevailed as an epidemic in Malta on four occasions. The first was in 1837, the second in 1850, the third in 1865, and the fourth was the 1887 outbreak now

under consideration; and it is worth noting that the disease has on every occasion visited the island between June and November, and never between December and May. In 1887 the first suspicious cases occurred in the last week of July at Zabbar, St. Julian's, Cospicua, and Valetta, some rather marked diarrhœa having preceded in May and June. From July 25th to September 5th the disease broke out nearly day by day in some fresh locality, and though it began to diminish in October, one new place was attacked as late as November 2nd. In all, five towns and twenty-four villages were attacked, there having occurred a total of 626 recorded cases and 462 deaths. These were distributed as follows:—The fortified towns, with a population of 60,629, had 155 cases and 110 deaths, or 2·5 per 1000 of attacks and 1·8 per 1000 of deaths; whereas the villages, with a population of 76,161, had 471 cases and 352 deaths, or 6·2 per 1000 of attacks and 4·6 of deaths; the total cholera mortality in the island being at the rate of 73·5 per cent. of the attacks. This percentage is of course very high, and Dr. PISANI is inclined, from circumstances coming to his knowledge, to think that a not inconsiderable number of cases were either concealed or not reported.

The marked difference in the incidence of the disease in the fortified towns and in the villages has more than once been drawn attention to; and it was, during the course of the epidemic, attributed by the Lieutenant-Governor to the circumstance that, whereas these towns were drained and supplied with good water, the villages contained some of the poorest and worst housed of the people, who were largely dependent on surface water collected in tanks. This same preference of the disease for unhealthy localities is well illustrated by Dr. PISANI, who points to the excessive amount of attack and of death in certain specified narrow streets, which are evidently densely overcrowded, both as to houses on area and as to people in houses, and which have numerous lateral blind alleys leading out of them. The villages are also referred to as being without good potable water, as having their supplies so stored as to become polluted through leakages from adjoining cesspools, and still oftener through cracks in ill-paved courtyards where poultry and animals are kept.

As to the origin of the cholera in Malta, Dr. PISANI, although discussing this matter at some length, is unable to refer to any source which is capable of proof. But it seems to be implied that the disease was probably introduced from Sicily during the period between May 18th and July 4th, when no restrictions were placed on communications between the two places. If this was possible, we think it was also possible during periods when quarantine was in operation, because there was evidently during such periods illicit communication between Sicilian boatmen and the Maltese. But under any circumstances the fact remains that Malta, which is one of the places in Europe where quarantine impositions are of the strictest, and which, by reason of its being a comparatively small island, is most favourably circumstanced for giving effect to such restrictions, has again been attacked with cholera, notwithstanding its quarantine measures. Great Britain is, during the course of Dr. PISANI'S report, held up as a country which may well rest on her sanitary improvements as a means for resisting this disease; indeed, Dr. PISANI goes much further than we should dare to go as yet, for he says that "by good sanitation she has rendered herself independent of any importation of cholera germs"; and, by way of contrast, he refers to places in Malta which in important respects have not improved since the date of Dr. SUTHERLAND'S report in 1865; and, further, by way of summary, he states that recent experience has shown that the most sterling restrictive measures adopted in the colony proved to be utterly useless, and that it is on good sanitation that the island should "exclusively rely," since it is impossible effectually to keep out the disease. This is as it should be, and this alone is the tone to adopt in order to secure that willingness to expend money on sanitary improvements which would otherwise not easily be forthcoming. It is therefore with some disappointment that we turn to the final paragraph of the report, where, after some description as to that which is necessary to convert the soil of the island into one that shall be "unfertile.....for the development" of cholera, it is stated that until this has been done, and until, by international agreement, "uniform measures are everywhere imposed" as to cholera in Europe, Malta will be forced to adopt "restrictive measures as the only means" of preventing its importation. However distant a view we may be able to take into the dim future, we cannot venture to predict a day when all Europe will everywhere have adopted uniform measures of sanitary prevention, and hence, if the suggestion made by Dr. PISANI finds favour with those in authority, and this notwithstanding the recent and fatal experience in the opposite sense, we must look forward to a wellnigh endless imposition of the same measures of restriction that have already so often failed the Maltese people, and which will assuredly and more than anything else hinder the progress of those very measures of sanitary improvement which are held up as the ones on which the island should exclusively rely So long as the Maltese Government, by the adoption of quarantine restrictions, professes to protect the colony against the importation of cholera, so long will the inhabitants find valid excuse for their objection to the imposition of rates for sanitary measures of prevention, in pointing to the fact that they already pay—and this dearly—for the authorised means by which the disease is to be excluded. The two things to which Great Britain owes the measure of safety she has reached have been fear of the advent of cholera and the knowledge that useless quarantine measures would no longer be applied by her Government.

Annotations.

"Ne quid nimis."

ALTERATIONS IN THE EXAMINATIONS OF THE UNIVERSITY OF LONDON.

THE following changes in the various examinations for the medical degrees at the University of London have been adopted by the Senate, but as they must be published in the forthcoming Calendar they probably will not be carried out until after an academical year has expired. They may therefore come into force in 1890. At the Matriculation, Botany will take a place as an optional subject; it will embrace the elementary facts in the Morphology and Nutrition of the

British Flowering Plants, and a technical description of a flower. At the Preliminary Scientific M.B. Examination, as for the Intermediate B.Sc., a *viva-voce* interrogation on the use of instruments will be introduced, and certain clauses bearing on the Laws of Motion, Fluid Pressure, Specific Gravities, the Pressure of the Atmosphere and the Elastic Force of Gases will be removed from the syllabus. A far better change would have been the introduction of distinct examinations in Physics for the Preliminary Scientific M.B. and the Intermediate B.Sc., inasmuch as candidates for the latter examination undergo a much more thorough mathematical training than those for the medical curriculum, and it is scarcely fair to put the same papers before two different classes of candidates. Slight modifications, which will meet with general approval, will be made in the syllabus of General Biology. In the Zoological section the Dog-fish and the Amphioxus displace the Fowl and the Pigeon, Anodon is substituted for Helix and Distoma, and the amount of development required to be known by the candidate is carefully laid down. Chara, Mucor, and Protococcus disappear from the botanical list, and Vaucheria is introduced; but other and better changes may be expected at the next revision, as we are now informed that the list of animals and of plants will be changed from time to time. For the Intermediate M.B. Examination the syllabus in Organic Chemistry has been revised, and Benzene and Toluene, with their principal derivatives, and the Glucosides are specially referred to. Questions have been set on these subjects in former years, when they only came inferentially into the clauses specified as being included in the examination, so it is as well that they should now be specifically mentioned. The chief constituents of the animal and vegetable organisms and the chemical principles of the processes of nutrition and respiration are missing from the chemical syllabus, and have apparently been relegated to the physiologists, who, we suppose, will now take them under their especial care. In Practical Chemistry, Malates will be omitted, but Salicylates, Phenol, Chloral, Chloroform, and Brucia will be added to the existing list. No changes are promised for the Final M.B. Examination, but the regulations for the M.D. degree will undergo a most important change. The certificate of having passed an examination in subjects relating to Public Health will no longer be given, but a candidate for the M.D. degree may elect to enter for "State Medicine" instead of for the ordinary examination in Medicine. In order to do this, he will have to produce certificates of having attended to State Medicine for two years after having taken his M.B. degree, but if placed in the first division at the M.B. one year will suffice. Such certificates must be signed by "the holder of a public health office directly or indirectly subject to control by a Secretary of State or Government department." The examination in State Medicine will be conducted on lines similar to those proposed for the new examination in Medicine, and a candidate may either elect to be examined by written papers, a commentary on a case, and a practical examination as heretofore, or may submit a dissertation or thesis, on which, if accepted, he will be examined if necessary, and this will exempt him from everything except a practical examination. Mental Physiology remains a part of the M.D. and M.S. Examinations. In fourteen years there have been ten diplomates in Public Health at the University of London; at Cambridge ten candidates or more are fairly and fully examined every year. We question, therefore, whether these new regulations will be of any great value in spreading a knowledge of State Medicine among our London students, and if they will not be found as onerous and unpractical for even our best medical officers of health as those which they have superseded. A great deal, both in Medicine and State Medicine, will depend on the merits of the early theses that will be submitted in lieu of the written and clinical examination for the M.D. degree, and we shall be much interested in watching the new departure. These modifications in the regulations for the M.D. seem to us to be a confession that the older universities were wise in acknowledging that private observation and research brought out some qualities and work that were as worthy of recognition as mere ability to pass high-pitched examination standards.

ROYAL BARRACKS, DUBLIN.

ON Monday last Lord Belmore brought under the notice of the House of Lords the unsatisfactory condition of the Royal Barracks, Dublin, as regards the health of the troops. He stated that of sixty-five cases of enteric fever fifty-nine were in the Royal Barracks, but he did not state over what period of time these extended. He desired to know what steps it was intended to take to improve their sanitary condition. The answer of the Under Secretary of State for War was not altogether satisfactory. It is true he stated that most of the recommendations made by Sir C. Cameron and Dr. Grimshaw had been carried out, either fully or in a modified form, at a cost of £1400, that £10,000 had been included in the estimates for demolitions, reappropriations, and sanitary improvements at the Royal Barracks, and that an additional sum amounting to £1840 would be taken to improve the other barracks in Dublin. But he also stated that a report had been drawn up on the subject of the condition of the Royal Barracks by Mr. Rogers Field, which he hoped to lay on the table in the course of a few days, though he did not give the slightest indication as to the gist of that report. "The whole question," he said, "would be dealt with in a general way in one large scheme, but the Secretary at War was not prepared at present to say what the details of that scheme were." We must therefore be content to wait till the forthcoming report is presented, or Mr. Stanhope thinks fit to announce his intentions, before we can express any opinion on the subject. It is, however, satisfactory to know that he is prepared to spend liberally in carrying out measures to improve the sanitary condition of the troops in Dublin. In addition to the £13,240 mentioned above, a sum of £16,000 is to be taken for the completion of the new barracks at Grangegorman.

AMERICAN WATER-SUPPLIES.

THE American Public Health Association have issued a report of a committee appointed to inquire into the pollution of water-supplies, which evidently has for its object to draw public attention to the need which exists for supplying the cities and towns of the United States with water that shall be free from the risk of pollution. Enteric fever, it is stated, is present in all the cities, giving annual death-rates of from 15 to 100 and more in every 100,000 of the population. Local outbreaks, it is explained, are without hesitation ascribed to well water which has received sewage soakage, but when public supplies are concerned the sources of which are also subject to sewage pollution, it is considered that objection to the use of such water is merely sentimental, and people hesitate to attach the danger of specific contamination to such supplies which they readily assign to polluted well water. And yet the United States exhibit instances which show, in a striking way, that their enteric fever death-rates have been proportioned to the extent to which their water-supplies are polluted by sewage. Where, as in Brooklyn, the water-supply is free from risk of sewage pollution the death-rate is small; whereas in Philadelphia, in which city less attention is given to maintaining purity of water sources, the reverse is the case, and the enteric fever death-rate is correspondingly high. As indicating the

importance of an unpolluted water service, attention is drawn to the fact that during the period 1851–74 the enteric fever death-rate of Vienna ranged from 100 to 340 per 100,000 annually; in 1874 spring water was introduced instead of that from polluted wells, and the rate at once fell to 50. With the extension of the new service it has since gone down to 11, and enteric fever in hospitals is stated to be becoming so rare that cases are regarded as of unusual interest when admitted. But even when public supplies are introduced in American cities filtration seems an unusual process, storage in tanks to secure greater clearness of water being mainly relied on. As to this, the Association point out that although after a week's storage water becomes clear from deposit of organic and inorganic matters, yet the bacterial colonies found in the stored water greatly exceed in number those which existed in the water when first impounded in its turbid state; and with reference to any influence of such storage on specific infection, it is stated that an infected water-supply, which prostrated 1200 to 1800 and killed 130 of the inhabitants of Plymouth, Pa., had passed through three storage reservoirs before accomplishing its deadly mission. But it must be remembered that filtration has also failed in a similar way to get rid of specific infection, both where natural and artificial filtration has been in operation; and the Association therefore urge that nothing short of supplies from pure sources, and well protected against sewage contamination along the line of delivery, should be contemplated. And comparison of the expense involved in the death of no less than 30,000 enteric fever patients annually in the United States of America, together with the enormous number of non-fatal attacks, with that of securing a wholesome water-supply that shall be available both for the present and a future generation, leads the reporters to assert that economy would lie on the side of the wholesome water services. Hence State boards of health are urged to take a livelier interest in this important subject; and to State legislatures it is pointed out that advantages would accrue to the public were they to lend financial aid in carrying out works for the procuring and preserving of water-supplies free from risk of sewage contamination.

"ANTERIOR METATARSALGIA."

UNDER the name of "anterior metatarsalgia" an affection is described by Dr. Auguste Pollosson, of Lyons, which, though hitherto unrecognised as a distinct affection, has, he believes, a very real existence, being capable of putting a patient who has the misfortune to be its subject to a good deal of serious distress and inconvenience. He describes an instance in which a medical man, twenty-nine years of age, has suffered from this affection for some years. It gives no trouble when the foot is at rest and without a shoe, but is usually brought on by wearing boots and by walking a good deal. It is much more likely to occur when going down than when going up hill. The pain comes on suddenly, a feeling of something having given way in the foot accompanying the onset, together with a kind of grating sensation. After this the patient walks lame, for all pressure of the anterior part of the sole of the foot on the ground is very painful. If walking is persisted in, the pain increases, till in a few minutes it attains its maximum, rendering all further attempts at locomotion absolutely impossible. The symptoms can be removed by taking off the boot and squeezing the fore part of the foot, especially if the heads of the middle metatarsals are at the same time pressed upwards by the finger. When this is done a kind of grating is again felt, together with a sharp twinge of pain, but almost immediately afterwards the pain entirely ceases. The cause of the affection is evidently a certain laxity of the transverse metatarsal ligament, which permits a partial infraction of the arch formed by the heads of the five metatarsals, one of the middle ones, probably the third, becoming dislocated downwards and compressing the nerves running along each side of it against the heads of the neighbouring bones. Dr. Pollosson mentions a somewhat analogous case, where a young growing girl suffered from hammer-toe from a similar laxity of the metatarsal ligaments. With regard to the treatment of anterior metatarsalgia, the main indication seems to be to pad the sole of the boot so as to prevent as far as possible the descent of the offending metatarsal head. He finds, however, that in the case described the patient is unable to bear as efficient a pad as could be wished, so he uses the half of an indiarubber ball sewn on the sole of the boot, which, though not entirely satisfactory, is still of considerable service.

DR. OLIVER WENDELL HOLMES AND THE BOSTON MEDICAL LIBRARY ASSOCIATION.

THE proceedings which marked the reception on Jan. 29th by the Boston Medical Library Association of the gift by its late president, Dr. Oliver Wendell Holmes, are fully detailed in the *Boston Medical and Surgical Journal* for Feb. 7th, from which we have taken the full text of Dr. Holmes' remarks. After the President (Dr. Hodges) had read the letter in which Dr. Holmes offered his gift, the librarian (Dr. J. R. Chadwick) moved that the Association gratefully accept from Dr. Oliver Wendell Holmes the gift of his medical library of 968 volumes and the shelves which contain them. He prefaced the motion with some appropriate remarks, in the course of which he referred to the rate of growth of the seven principal medical libraries in the country, and showed that their Association, although the youngest, had already passed three of them, containing nearly 20,000 volumes. He quoted from an address made by the donor at the dedication of the building and hall of the Library Association, showing his estimate of such collections, and dwelling on the close bond of union which exists between the scholar and his library, which made the present gift all the more generous. Dr. Cheever, the President of the Massachusetts Medical Society, seconded the resolution, which was supported by Mr. Justin Winsor, librarian of the Harvard University, and Dr. G. B. Shattuck, who gave some interesting reminiscences of Dr. Holmes and of medical journalism. On the conclusion of Dr. Holmes' address Dr. J. C. Blake spoke of the great indebtedness the world in general, and the medical profession in particular, owed to his writings, and concluded with the announcement that Dr. Holmes had consented to sit for his portrait, which, when completed, would find its home in the hall of the Association.

RESECTION OF A PORTION OF THE ILEUM.

DR. FREDRICO RUBIA, of Madrid, recently communicated to the Spanish Royal Academy of Medicine an interesting case in which he performed successfully a somewhat extensive resection of the gut in the wards of the Instituto de Terapéutica Operatoria of Madrid. The patient was a woman of thirty-two years of age, who, after eating a quantity of cooked vegetables, was seized with violent abdominal pain, a swelling appearing at the same time in the right groin. Vomiting and constipation followed. Subsequently the tumour in the groin became inflamed and opened in two places—viz., at the external inguinal ring and at the lower part of the right labium. From these fistulous openings fæces kept continually escaping, rendering the patient's condition most deplorable. Attempts were made during many months to get these openings to close up, but, although temporary improvement followed some of the means used, it ultimately became evident that unless some radical operation was resorted to the patient must

necessarily succumb. Having given purgatives and enemata to empty the bowels, and a disinfecting bath to cleanse the surface, Dr. Rubio performed laparotomy, making a small incision in the spot usually selected for the ligature of the external iliac. This brought into view the cæcum with the vermiform appendix. He then hooked up the coils of the ileum one after another; the third of these presented an opening with fungiform edges three centimetres and a half in length by two centimetres and a half in breadth, and surrounded by a very unhealthy-looking area — which, indeed, occupied the whole circumference of the gut. Under these circumstances, it was felt that any attempt to close the opening would assuredly end in failure, and that the only alternative was to excise a portion of the gut. About eight centimetres were consequently excised, together with a V-shaped piece of the mesentery; catgut sutures were applied, and the patient made a good recovery, normal defecation taking place on the second day after the operation.

THE LONDON STREETS.

AFTER the still recent experience of a heavy fall of snow, which for a time interfered materially with street traffic, there is a natural tendency to cast about for the best possible means of effecting a needful clearance in any future emergency of the same kind. As regards the materials available for this purpose, we have room for the exercise of discretion. Salt, sand, ashes, gravel, and possibly one or two other less familiar aids, have been largely employed in the past. Of these, the first has now by general consent been allowed to fall into disfavour on account of the extreme cold and the consequent risk to pedestrians and animals engendered by its indirectly freezing action. Its only advantage, if it be a real one, consists in its usefulness in clearing such hollow rails as are used on tramway lines. In all other cases, and perhaps in this also, the desired effect is better secured by the copious use of sand, which is happily free from any very inconvenient characteristics. This is, as a rule, undoubtedly the preferable means to employ. As to the method of its distribution, we may safely say that hitherto it has not been highly elaborated. Cart and shovel, and those not by any means too freely employed, usually constitute the sum of the available machinery. For most purposes they are sufficient, but this need not induce us to ignore other and possibly more effective contrivances. The ingenious and useful invention of Mr. Strawson, by means of which an air-blast is made to distribute a variety of granular and non-granular substances used in agriculture, has been recommended for this purpose also. There seems to be every likelihood that, if so used, it would realise its object, and we may reasonably expect that in case of any future obstruction by snow its distributive qualities will be put to the proof.

PARALYSIS "A FRIGORE."

AT a recent meeting of the Paris Clinical Society (*La France Méd.*, No. 21) a paper by M. Neumann on the part played by nervous predisposition in the etiology of facial paralysis *a frigore* was read, the work being suggested by M. Charcot, who has long maintained the importance of heredity in nervous diseases. Neumann (in 1887) was the first to suggest that cases of facial paralysis attributed to exposure to cold were not explained by this simple statement, but that there must be a nervous predisposition in the subject, cold acting as an adjuvant, like traumatism, in the induction of hysterical contracture or in producing an attack of gout in the gouty subject. Hence, he would banish paralysis *a frigore* from the catalogue of so-called rheumatic affections. In order to prove his point, he made full and complete inquiries into the antecedents of the subjects of facial paralysis, of which he has collected forty-one cases. He found that many were liable to chorea, migraine, convulsions, and spasmodic tic; that insanity, general paralysis, epilepsy, hysteria, chorea, and ataxy were met with in relatives. The neuroses, and not organic affections (with the exception of tabes), seemed to be the more related to the liability to facial paralysis—which, moreover, he showed might be inherited, citing an instance where five cases were observed in one family. M. Bouchard asked what share the arthritic diathesis played in the etiology of facial paralysis, regarding the neurotic and arthritic diatheses as two branches of the same trunk.

THE COMMITTEE FOR AGRICULTURE.

THE capital importance of home-grown foods is but modestly shadowed forth by the small and unpretentious documents which from time to time appear under the auspices of the Committee of the Privy Council for Agriculture; but their reports, if somewhat few and small, have at least the merit of being very full of matter. The Agricultural Produce Statistics and the Agricultural Adviser's Second Annual Report, which have just appeared, will amply sustain the reputation of the department in this respect, especially the latter, which contains in a compendious and easily intelligible form a great body of useful and interesting information respecting the insects which are injurious to the crops, and their habits and life history. It is perhaps desirable that these reports should be more widely known and appreciated than they are, and those of our readers who live in agricultural districts would often be doing both a public and private service by bringing them to the notice of their agricultural neighbours. Their low price—a few pence merely—places them within the reach of the smallest farmer, and the very excellent woodcuts by which they are illustrated assist most usefully in conveying scientific information even to unscientific readers. From the record of descriptive pamphlets and advice distributed during the past year, it is plain that the agriculturists of the country are beginning to look for guidance and assistance to the committee and their expert advisers; but considering the magnitude of the interests involved, the vast number of persons engaged in agricultural pursuits, and the eminently practical character of the directions which are here given for dealing with insect pests, it seems strange that two or three thousand copies of these occasional papers should be the measure of their circulation. We hope that the work of the department will rapidly increase to proportions worthier of the end in view and the real excellence of the means which are being taken to achieve it.

MEDICAL PRACTICE IN CONSTANTINOPLE.

ACCORDING to a paragraph appearing in the *Globe*, a new regulation has been issued by the Turkish Government obliging all medical men who wish to practise in Constantinople to undergo an examination and obtain a diploma from the medical school there. Indeed, it is not quite clear whether the new order does not affect the whole of the Turkish dominions. It is somewhat difficult to understand the "consternation" which is said to have arisen in the foreign colony in consequence of the regulation, or the refusal of the British ambassador to recognise it, for there has for a long time past been a very similar rule in force—viz., that all foreign medical men wishing to practise in Turkey should show their diplomas and undergo a short examination *viva voce* before the director of the Imperial Medical School, Marco Pasha, and pay a fee. It can scarcely be alleged that there is any serious hardship in this rule, though doubtless there were complaints as to the way in which it

was carried out. In consequence of its existence all the foreigners at present practising in Turkey are supposed to have Turkish diplomas, and therefore they cannot well be obliged to undergo any fresh examination, even if one of a somewhat more stringent character be introduced for new comers.

THE HYDERABAD COMMISSION ON CHLOROFORM.

IN a report of the recent prize distribution at the Hyderabad Medical School, which appeared in our issue of Feb. 23rd, some remarks of Surgeon-Major Lawrie, M.B., M.R.C.S., of the Bengal Army Medical Service, are mentioned, which deserve some comment. We learn that a commission had been appointed to investigate the action of chloroform, and that the result of the researches made upon pariah dogs was that these animals were killed from respiratory failure, and in no case did cardiac syncope occur directly. Unfortunately Mr. Lawrie contents himself with bare statements of results, adding that these results tally with his own experience, which he believes to be uniquely large. Mr. Lawrie, as a disciple of Simpson and Syme, arrives at conclusions consonant with the teaching of those great clinicians, but utterly at variance with the experience alike of experiment and practice as carried out in Europe. We should require more than the scanty statements of experiments performed upon dogs—notoriously non-susceptible to chloroform syncope—before we could accept the conclusions of the Hyderabad Commission when they appear to go in the very teeth of those at which the Commission appointed by the Royal Medical and Chirurgical Society and by the British Medical Association arrived, and, further, are opposed to the careful and painstaking experiments of such scientific observers as Snow, Claude Bernard, McKendrick, and others too numerous to mention. All those who are familiar with chloroform are well aware that syncope, when primary, as a rule supervenes in the initial stages of inhalation, while secondary syncope due to respiratory embarrassment is the result of accumulation of chloroform in the blood leading to paralysis of the medullary centres, and occurs in a late stage of the administration. The primary syncope it is rarely, if ever, possible to induce in dogs, although, unfortunately, it is this form of chloroform heart failure which does occur in human beings, and which it is almost impossible to remedy. While welcoming the attention paid to the subject by the Hyderabad Commission, we cannot but feel that, should the Commission inculcate a disregard of the heart as a factor in chloroform dangers, it will do harm and provoke a slipshod carelessness in the use of that valuable anæsthetic, which must in the long-run do damage to the cause the Commission has espoused.

A MEDICAL AUTHORITIES' DISCIPLINE BILL.

IN another column will be found the draft of a projected Parliamentary Bill to amend and improve the law in relation to the disciplinary powers of the various recognised medical bodies. The Bill has been drawn up at the request of the President of the General Medical Council by the legal advisers of that body, and is chiefly designed to define the powers of the medical authorities to withdraw or restore medical diplomas, and to give equal and similar powers to each and all of the medical bodies possessing authority and caring to exercise it. Some of the bodies have no such powers, whilst others, particularly the Universities, do not seem anxious to possess them; others again have powers, but of a somewhat infirm character. In any case, it is desirable that all bodies having the power to grant diplomas should have a discretionary power to cancel them when good and sufficient reasons are adduced. A diploma is not only a guarantee of more or less professional competency, as the case may be, but is generally and justly considered, to a certain extent, a testimonial as to moral character, and as exacting compliance with the recognised rules of honourable and professional behaviour. It seems, therefore, only fit that medical authorities having power to give diplomas should have an equal power to withdraw them when their possessors offend against professional honour and conduct. The draft of the Bill has not yet been officially submitted to the General Medical Council, and for the present rests in the Minutes of the executive committee. We cannot but think that, should the Bill eventually pass into law, it will confer proper powers upon our medical authorities which will certainly not be abused and which may exercise a wholesome influence.

THE ROYAL COMMISSION ON HIGHER EDUCATION IN LONDON.

THERE seems to be no prospect of a speedy report from the members of this Commission. As all the evidence was given before the autumn vacation, it was hoped that not only would the report have been issued, but that there would have been ample time for its discussion by teachers and educationists before the meeting of Parliament, and there is much grumbling and dissatisfaction at its non-appearance among those interested specially in medical education and in the proposal for the formation of a Teaching University in London. Meanwhile we notice that the present University of London is making many alterations in its examinations, so that the agitation has not been altogether fruitless, if it has moved the senate chamber in Burlington-gardens.

THE ERADICATION OF BOVINE TUBERCULOSIS.

AT the annual meeting of the Scottish Metropolitan Veterinary Medical Society, held at Edinburgh on Feb. 20th, the time was mainly occupied by a discussion of a paper read at the last meeting by Mr. Storrie, on "The Measures to be adopted for the Eradication of Bovine Tuberculosis." Mr. Rutherford, in opening the debate, averred that there was no instance of the disease having been directly transmitted to man through the consumption of the flesh or milk of a tuberculous animal, and that unjustifiable alarm had been created. He argued that greater effectiveness would be given to the Contagious Diseases (Animals) Act if the veterinary profession were to report outbreaks of disease instead of the owners of herds. Mr. Pottie ridiculed the idea of tubercular infection through consumption of meat or milk. At the same time he believed tuberculosis was increasing rapidly, and that something should be done to stay its progress and to protect the public from eating diseased meat of any kind. Dr. Hunter boldly affirmed that the milk of a tuberculous cow was highly dangerous to the human subject, and that this accounted for the high death-rate among children brought up on cow's milk. Principal Williams agreed that in all cases the flesh and milk of tuberculous animals should be condemned, and that they would never get rid of tuberculosis until it was placed under the Contagious Diseases Act, compulsory slaughter enforced, and compensation granted to owners. The discussion closed with the unanimous adoption of the following resolution: "That this Society, thoroughly believing tuberculosis to be a systemic and contagious disease, urge upon the Government (1) to stop the sale of milk from animals suspected of being affected with tuberculosis; (2) to suppress the consumption of meat from tubercular animals; and (3) to give compensation for a limited number of years."

METROPOLITAN ASYLUMS BOARD.

THE Ambulance Committee of the Metropolitan Asylums Board have presented to the managers an interesting report of their proceedings during the year 1888, certain details of which deserve to be publicly known, for the metropolis is especially indebted to this committee, and to its chairman, Mr. A. C. Scovell, for the excellence of the arrangements which have been made for the removal at short notice of a large proportion of the cases of infectious disease which occur in London. The report states that during the year the river ambulance steamers had run a distance of 5090 miles, and conveyed 847 patients and other persons to and from the ships. The land and river services had together removed 5114 patients to the hospitals, a number some 1300 less than in the previous year. We are glad to note that the committee have determined to maintain this service in a state of efficiency even when no special demand is made upon it, so that there may be no delay if any outbreak of disease should occur. The ambulance service, it is stated in the report, is capable of acting as the removal authority for the whole of the metropolis, and the managers could undertake this duty with efficiency and economy and in the interests of the public health, if powers were given to recover payments for the removal of infectious cases not paupers. In noting this reservation of the Ambulance Committee, we are compelled to think that the gain to Londoners conferred by the isolation of cases of infectious disease is sufficiently great to warrant this charge being cast upon the rates. This isolation is not a mere question of personal relief, but is of as much public interest as the extinction of a fire. If patients and their friends are compelled to hesitate whether they can incur the cost of removal, it will end in many infectious persons remaining in their own homes who ought to be removed. Londoners will not be much benefited if one case of small-pox be taken to hospital and another remains at home able to communicate disease. An interesting point brought under notice is that, of 107 persons removed to hospital on the ground that they had been supposed to be suffering from small-pox, forty-three were returned to their own homes for the reason that the diagnosis was incorrect. There can be no better illustration of the need for opportunities to be given for medical students and young practitioners to make themselves acquainted with the appearances of this disease. At the present moment there is not a single case of small-pox in the hospitals of the managers, and the number of fever cases continues to diminish. Thus, during the last fortnight, 103 cases have been admitted, as against 145 in the previous two weeks, and the total number of cases under treatment had fallen during this period from 743 to 712.

OTOSCOPY IN DISEASES OF THE SPINAL CORD.

As the examination of the fundus of the eye is capable of affording valuable assistance in the diagnosis of cerebral diseases, so, according to some recent researches by Dr. Gellé, some light may be thrown on affections of the spinal cord by the examination of the ears. When pressure is exerted upon the tympanic membrane by means of injecting air into the meatus with a ball syringe whose nozzle fits closely into the passage, the hearing power is diminished both when tested by a tuning-fork placed on the ball of the syringe and also when placed on the cranium, thus showing that the sound, whether conveyed by the air or by the bony case of the ear, has to pass through the same route—viz., the membrana tympani and the chain of ossicles—in order to reach the labyrinth, the German theory of the direct propagation of cranial sounds through the petrous portion of the temporal bone to the labyrinth being in this way, according to Dr. Gellé, shown to be incorrect. When the vertex tuning-fork is heard as well with an inflated meatus as under normal conditions, the true inference is that the stapes is immovable. Not only does inflation of the external meatus diminish the hearing power of the ear on which it is practised, but that of the other side as well. This must be due to a reflex action controlled by an oto-spinal centre causing an increase of tension in the membranes of the opposite ear. If this be the case, as Dr. Gellé believes, a method is opened up for diagnosing the condition of the spinal cord in the locality of the oto-spinal centre, as where the ears themselves are sound a want of coördination will indicate the existence of some lesion of the cervical portion of the cord.

PASTEUR INSTITUTES IN ITALY.

BESIDES the parent institute in Paris, there are, it seems, twenty others in the world; and of these Russia has seven and Italy five, while Vienna, Barcelona, Bucharest, Rio de Janeiro, Havannah, Buenos Ayres, Chicago, and Malta have one each. In Germany rabies is practically unknown throughout the empire, owing to the highly organised system of surveillance exercised over dogs. In those Italian centres, like Milan and Naples, where the treatment has been for some time in operation, the results have been so satisfactory that (as we mentioned lately) a movement has been started in Rome to establish a Pasteur institute there, and so to obviate the necessity of sending those suspected of having been bitten by rabid dogs all the way to Naples for the necessary treatment. The Roman Academy of Medicine has hitherto withheld its approval of the system, while the Istituto d'Igiene of the Roman University adopted the same course; but now the scruples of the latter have been so far overcome that the Commune has secured its assent to the establishing of an institute on the same lines as those at Milan and Naples, and has applied for the requisite funds from the authorities. The movement has been so influentially supported that there is little doubt of its realisation, whether it obtains the official subsidy or not; and its promoters are now able to point to results yielded by the five institutes already in working as more than justifying their undertaking. Professor Albanese, the distinguished Sicilian surgeon, by his elaborate memoir on the subject, has removed many of the doubts and objections that weighed with the opponents of the system, and if the institute now in contemplation in Rome is carried to completion on the scale and with the adjuncts proposed, it will become to Italy what the parent institute is to France—a school of observation and research, as well as a resort of prophylaxis and cure. By that time the Academy of Medicine may find reason to modify the distinctly hostile attitude it has maintained towards the system, and, in conjunction with the Hygienic Institute, may raise the Roman establishment to a higher grade of efficiency than that statistically claimed by its predecessors at Naples and Milan.

TETANY.

IN some cases of tetany the whole of the muscles of the body are in a state of tonic spasm. Pressure upon the vessels of the limbs sometimes causes a cessation and sometimes an increase in the state of spasm; mechanical and electrical irritability of the muscles are increased. As a rule no fever is present, and over the puffy swelling sometimes noted on the dorsum of the hand and foot no pink or red colour is to be seen, nor does the swelling feel hot. The attacks of tetany, most of which are confined to the distal extremity of the limbs, may last almost continuously from one to ten days, and sometimes many actual intermissions

may be noted even in the twenty-four hours. The respiration is seldom seriously affected unless it be by way of laryngismus, which is a very general accompaniment of the spasms elsewhere. Tetany is common during the first months of life, and may be seen at all ages in children. Rickets, and especially those forms with much intestinal catarrh and anæmia, are its chief causes. As to the cause of the tonic spasm and the seat of the nervous discharge, much doubt must still remain. That the spinal cord can put the hands and feet into the well-known position cannot be doubted, and that it can give rise to affections in which the muscular irritability is increased is also true, but then the brain motors and their spinal extensions are equally capable of doing the same things. The treatment should consist in general measures to cure the constitutional weakness and rickets, with the exhibition of small doses of arsenic.

ANTHRAX AT HORSEHAIR FACTORIES.

AN inquest was lately held at Sudbury, Suffolk, on the body of a horsehair dresser of Long Melford, who had died at the Sudbury Hospital. From the evidence it seems that the deceased first fell ill on Feb. 9th, and that on the 11th he complained of a pimple on the back of the neck near the left ear. Next day it was more inflamed, but he persisted in going to work, and did not consult a doctor until the 15th, when he was seen by Mr. Horsford, who forthwith sent him to Dr. Holden at Sudbury, by whom he was admitted into hospital, and shortly after Dr. Holden excised the malignant pustule. The excision was, however, too late to avert death, which took place early on the 17th, just about a week after the patient first complained of feeling ill. Dr. Holden testified that death was due to anthrax, and stated that this was the fourth case which has occurred in the district during the last two years in connexion with horsehair factories. This is important testimony, and demonstrates the need of inquiry into the conditions and nature of the work at such factories, which might profitably be undertaken by the Local Government Board.

WATER-SUPPLY IN SCHOOLS.

GREAT as is the influence of efficient sanitation on the general well-being, it is probably nowhere more felt than in the management of schools, particularly those which receive resident pupils. Under such conditions any failure in the needful arrangements may be, and often has been, a cause of widespread mischief. The need of due care in matters of hygiene cannot, therefore, be too strongly impressed. It is also necessary, however, to avoid an opposite evil—namely, that excess of care which is calculated only to discredit and perhaps to defeat its purpose. Next to the vital question of drainage there is none so important as that of water-supply, and this, according to some recent statements, is in many schools by no means what it should be. According to one account, there is in some establishments no regular supply of drinking-water for the children's use, while it is complained that in others the disuse of the obtainable supply over-night, or during the weekly cessation of school-work, is likely to lead to contamination of the water by the leaden supply pipes. The dangers indicated in this description are certainly not imaginary. We are decidedly of opinion, however, that their existence and mischievous effect have, as regards the majority of schools, been over-estimated. In the case of those which are well attended, the water-tap is, we may suppose, in fairly constant use during five days out of seven. There is little chance of any appreciable solution of lead during the two vacant days, unless (as is not usually the case) the water itself has some specially marked action on that metal. The time at which a real difficulty may be expected to arise from this cause is rather when classes are opened after a prolonged vacation. It is a standing rule that at every such time the cistern and all pipes must be thoroughly flushed and washed out with an ample supply of water before anyone is allowed to drink. This rule is generally understood, and probably as generally followed. The lack of a regular water-supply must be exceptional in towns, at all events. Wherever it is recognised it should of course be made good. Another defect of management which is far more liable to occur, and one which is even more fruitful of disease than either of those mentioned, is the failure to cover or cleanse the cistern with sufficient care. No pains ought to be spared by school managers with regard to this important point.

TOXIC ACTION OF EDIBLE MUSHROOMS.

IT is generally supposed that edible mushrooms are under all circumstances a safe article of diet, but some recent observations made in Switzerland appear to show that there may be danger in at least one species if preserved in the dry state. Some persons in Berne who had eaten a quantity of the mushroom known as Helvella (or Morchella) esculenta, which had been purchased in the dry state, were seized with abdominal pain and vomiting a few hours afterwards. It was at first thought that some poisonous species must have got mixed with the Morchella esculenta, but upon examination this was found not to be the case. A decoction of the dried plant was then examined by Professor Demme, with the result that it evidently contained a powerful poison, the behaviour of which, when tested on cold-blooded animals, produced the impression that it was much more nearly allied to curare than to muscarin: the residue, when examined, was found to be inert. The toxic substance, whatever it was, appeared to have no connexion with the Helvellic acid discovered by Boehm and Külz in Helvella. Trimethylamine was prepared from a watery distillate of the dried mushroom, and the watery and alcoholic infusions contained a base which presented all the chemical and poisonous characters of neurin; the presence of other basic bodies also belonging to the group of ptomaines was suspected. The theory suggested by Professor Demme and Dr. Berlinerblau, who was associated with him in the investigation, is that the highly nitrogenous mushroom substance is capable, under special circumstances, of undergoing certain putrefactive changes which lead to the formation of products of a poisonous character bearing a close analogy to those formed during the putrefaction of animal bodies. Consequently there is a double source of danger in eating mushrooms—viz., the chance of admixture of poisonous species and the possibility of the existence of ptomaine-like bodies arising from partial decomposition having set in.

SUSPENSION TREATMENT OF TABES DORSALIS.

THE method of treating tabetics by means of suspension, lately on trial in Professor Charcot's wards (vide THE LANCET, Jan. 26th, 1889, p. 183), has excited considerable attention. The *Berliner Klin. Woch.* (No. 8) reports that it has been tried in the clinics of Professors Eulenberg and Mendel, with equally favourable result, the suspensions, which took place three times a week, being at first of one minute's duration, then increasing by half a minute up to three minutes. About twenty patients have thus been treated; and although, of course, the time is too short to announce any very positive results, two facts have been found to follow the treatment—viz.: 1. A certain number of patients have, immediately after the suspension, a readier and freer gait, less staggering, and complain less of lancinating pains (in some also improvement was noted in visual symptoms). 2. No ill effects have followed the practice. Our contem-

porary warns physicians and the public from hasty and exaggerated hopes of its efficacy. Professor Charcot is, we understand, preparing a detailed account of the technique of the treatment, and Dr. de Watteville has been authorised to prepare an English edition of the *brochure*, which will be ready in a few days. A full description is also given by M. Giles de la Tourrette, Professor Charcot's *chef de clinique*, in our contemporary *Le Progrès Médical* of Feb. 23rd.

THE GENERAL MEDICAL COUNCIL AND "THE LANCET" RELIEF FUND.

AT the meeting of the Executive Committee of the General Medical Council held on the 25th ult., the President submitted the scheme framed by the Editors of THE LANCET for the establishment, at their expense, of a fund to be called "THE LANCET Relief Fund," in connexion with which it is proposed by them that the President of the General Medical Council and the Presidents of the Royal Colleges of Physicians and Surgeons in London should be associated *ex officio* as almoners of the Fund. The following resolution was then moved and carried:—

"That this Committee sees no objection to the proposal that the President of the General Medical Council shall act as one of the almoners of 'THE LANCET Relief Fund,' provided that he himself sees no objection to doing so."

A SUSPICIOUS DEATH AND AN IRREGULAR DEATH CERTIFICATE.

THE *Consett Chronicle* gives a long report of an inquest on a little boy, George Suggett, who attended school on Thursday, Feb. 7th, came home about half-past four, and complained of being cold and of headache. After tea and toast, and on being undressed for bed, he was sick. He was sick again after getting into bed. Soon after, his mother thought she heard him crying, and went and found him in a fit. He remained insensible, and died at half-past two on the following morning, just ten hours and a half after his return from school. When the fit occurred, the father went for a doctor, and Mr. Harrison, jun., who described himself as an undergraduate in medicine in the London University, came, and advised ice to the head. The parents were simple and unsuspecting people, and the child was buried without further ado. But rumours arose that at school he had been struck by the pupil teacher, and the coroner ordered a disinterment. At the inquest, he pointed out the duty of all about the deceased, in cases of sudden death, to give notice to the coroner's officer or to the nearest officer of police. He was severe on Mr. Harrison, jun., for filling up a regular death certificate in such a case, telling him that a qualified medical man had been fined for giving a certificate in a case where a patient was unconscious when seen, and remained so till death. Several of the school children said that the boy had been hit on the cheek with the pupil teacher's hand, and that he fell over a form and against a desk; this was because he had fallen down in the school yard and made himself dirty. There was scarlet fever in neighbouring houses. The boy had been delicate since he had the measles, a year and nine months since. He had not complained of being struck, and the head master and other teachers neither saw nor heard anything of the fact. Here, then, was a case of considerable difficulty both from a diagnostic and medico-legal point of view. Mr. Edward Jepson, of Durham, made the post-mortem examination, and found a bruise on the left temple the size of two fingers. On removing the scalp, there was a small bruise about the top of the head, which must have been caused not later than three days before death. He was of opinion that death occurred from scarlet fever, and that the stroke on the head had accelerated but not caused death. This seems a wise and just estimate, though it leaves undecided whether the concussion arose from the fall in the yard or a blow. In any case, all concerned should take a lesson: pupil teachers not to use even their hands for punishment and blows; parents to investigate fully such sudden and striking illnesses; and unqualified assistants of all kinds, even "undergraduates of London University," not to fill up certificates of death.

BENEFICIAL EFFECTS FOLLOWING ARSENIC POISONING.

A REMARKABLE instance in which beneficial effects followed a poisonous dose of arsenic is published by a Hungarian practitioner in the *Gyógyászat*. The patient was an excessively backward and delicate child, who, though two and a half years of age, had only recently learned to walk, and that very badly. He was also able to talk very little, and was of a very unsociable disposition. About the age mentioned incontinence first of urine and then of fæces came on, and though all kinds of remedies were tried, the cold water treatment included, nothing appeared to produce any effect. By some accident the child got hold of some rat poison, the chief ingredient of which was arsenic, and swallowed enough to produce serious toxic symptoms, which lasted for five days. As soon, however, as these symptoms passed off, Dr. Herz was much astonished to find that an improvement little less than magical had occurred in the child. His dirty propensities ceased, he easily learned new words, and was ready to make friends with anybody.

THE ALBERT MEDAL AND THE PROFESSION.

THE Albert Medal, instituted to reward acts of heroism in saving life on sea or on land, is, it appears, only to be occasionally bestowed upon members of the medical profession, who furnish so many examples of this kind of virtue. We can quite understand that a distinction has to be made between deeds done in the ordinary exercise of duty, which often exposes to danger, and those which are wholly exceptional and voluntary; but it must often be a very delicate matter to make the distinction. Nor are we prepared to say that the operation of direct transfusion performed by the donor of the blood himself upon a woman dying of hæmorrhage should be excluded from the category of deeds entitling to this reward. We cordially echo the Home Secretary's words in reply to the influentially signed memorial praying for the award of the Albert Medal to Dr. Marcus Eustace, of Alresford, Hants, on account of such a service, when he characterises it as an act of "generous self-sacrifice and devotion to the calls of professional honour." It is pleasant to get this recognition of work well done; for, whether a medal be bestowed or not, the high sense of duty that inspires such heroic deeds is worthy of all praise.

TABES DORSALIS AND EXOPHTHALMIC GOITRE.

FROM time to time cases occur presenting many of the symptoms of locomotor ataxy in combination with the symptoms of Graves' disease, and questions naturally arise as to the nature of this association. Plainly the concurrence may be simply fortuitous, the two diseases evolving separately, and being due to their own causes. But the question has to be answered whether it is possible for the tabetic nerve lesion to produce the exophthalmic goitre in virtue of some slight transgression of its usual limits. Evidence exists, both clinical and experimental, tending to show that lesions about the restiform bodies may

produce the triad of symptoms characteristic of Basedow's disease. In cases of the association of the two diseases, have the sclerosis and degeneration on which the tabes depends exceeded their usual boundaries, and damaged those nerve cells and fibres which are concerned in the production of the tachycardia, enlarged thyroid, and protruding eyeballs?

CLINICAL SOCIETY OF LONDON.

SOME new rules have been drawn up by the Council of the Clinical Society, with a view to making the living specimens more practically useful to members than heretofore. On alternate evenings the meetings will commence at eight o'clock, and the living specimens shown are to be orally demonstrated by members, such demonstration not to occupy more than five minutes; this will be followed by questions put with a view to the elucidation of a case, but no lengthy discussion will be allowed. The reading of papers will, as heretofore, commence at 8.30 if the number of living specimens be limited, or at any time between 8.30 and 9 o'clock, on the completion of the demonstration of living specimens. Living specimens of interest, which will not admit of delay, may be exhibited on other than the above evenings, at 8 o'clock, in the ante-room. Demonstration of a case will not preclude the subsequent reading of a formal paper on the case should the exhibitor desire it, when the case may be shown again.

NEURASTHENIA.

THE great characteristics of the pulse in children and infants are reproduced in the pulse of those suffering from neurasthenia. As the circulation of the infant is characterised by irritability, irregularity, and variability, so it is with the circulation of these patients—a clear example or illustration of the theory of dissolution as applied to the nervous system; but these attributes belong not alone to the pulse, they define equally well the mental processes and the other nervous actions in this affection. The variations in the pulse-rate are not more remarkable than the changes in the "spirits" of these patients. Nor can the explanation of these variations be always adequately accounted for by recognisable external conditions. The external conditions include any change at the periphery of the nervous system, whether this periphery be the sensory nerve-endings in the skin, the muscles, the alimentary, or respiratory tracts.

MEDICAL COUNTY COUNCILLORS.

SINCE our last issue we have received the following further results:—

Glamorganshire (*Mountain Ash*).—Richard Wm. Jones, Esq., M.B. Glas. &c.

Lincolnshire (*Caistor*). — Alexander Cameron, Esq., M.D. Glas. &c.

NASAL DIPHTHERIA IN CHILDHOOD.

THE number of fatal cases of concealed diphtheria in children is certainly large. Even the most practised observer cannot obtain a satisfactory view of the naso-pharynx of small children. Experience in the post-mortem room teaches that the local diphtheritic manifestations are most extensive on the back of the soft palate, in the region to which neither food nor light has access. It must be difficult in many cases to say in which part of the throat the membrane first develops. The disproportion between the severity of the general symptoms and the slightness of the local lesions as seen during life is remarkable. At the necropsy the local lesions are almost always found to be much more serious and extensive than had been noted during life.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—In consequence of Professor Westphal's continued ill health, it is probable that Professor Erb of Heidelberg will be invited to take his place. At present the clinical duties are being carried on by his assistants, Drs. Oppenheim and Siemerling.

Buda-Pesth.—Dr. S. Róna and Dr. Szénássy have qualified as *privat-docenten* in Dermatology and Surgery respectively.

Graz.—For the vacancy in the chair of Anatomy caused by the migration of Professor Zuckerkandl the selection of names is as follows: (1) Professor Henke of Tübingen; (2) Professor Holl of Innsbruck; (3) Dr. Hochstädter, *docent* in Vienna.

Munich.—A centenary festival is being arranged in honour of the great physicist, Georg Simon Ohm, who was born at Erlangen on March 16th, 1789. He was at the time of his death, in 1854, professor in Munich. Dr. Aloys Martin, Professor of Forensic Medicine, is about to retire.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following eminent foreign medical men are announced:—Dr. W. Orlowski, a surgeon of great repute in Warsaw, Director of the Hospital of the Child Jesus in that city; Dr. Petrovich, Body Physician to the King of Servia; Dr. Johannes Brock, Professor of Zoology in Dorpat; Dr. L. Engelsberg, Director of a Children's Hospital in Vienna; Dr. Isidor Soyka, Professor of Hygiene at the University of Prague (by suicide).

DR. JOHN B. HAMILTON has resigned the position of editor of the *Journal of the American Medical Association*, in consequence of the recent passing by Congress of the Marine Hospital Service Bill, which has the effect of creating a life tenure in the office of Supervising Surgeon-General—an office which Dr. Hamilton has decided to retain.

THE death is announced of Dr. Francis B. Kane, Professor of Clinical Medicine at the University of California. Dr. Kane died from pneumonia after five days' illness. He graduated at the Queen's University, Ireland, in 1872, and for the past fourteen years had practised in San Francisco, where he was much esteemed.

WE have just received the General Medical Council's Minutes for 1888 (vol. xxv.). The volume includes four appendices, containing matter of general interest to the medical profession. We shall take an early opportunity of more fully noticing the volume.

AT the Philadelphia Polyclinic and College for Graduates in Medicine Dr. Weir Mitchell has been appointed to the newly created chair of Diseases of the Mind and Nervous System.

MR. E. BELLAMY has been appointed Examiner in Surgery in the University of Durham.

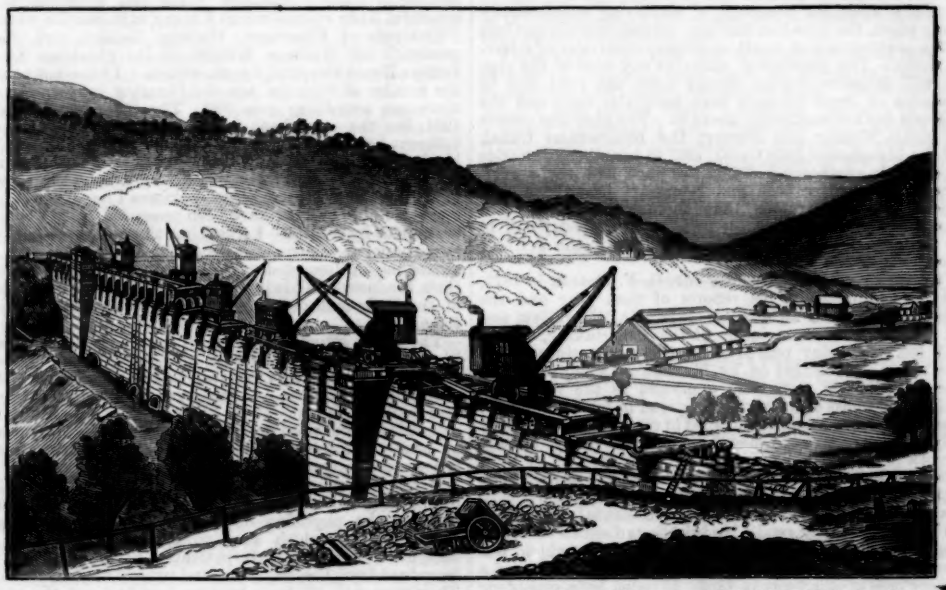
MR. ERICHSEN has been re-elected President of University College for the ensuing year.

IRISH MEDICAL SCHOOLS AND GRADUATES' ASSOCIATION.—The annual meeting will be held at 5 P.M. on Saturday, March 16, at 11, Chandos-street, Cavendish-square, W. On the same evening the annual dinner will take place at the Holborn Restaurant, at 7 for 7.30. Dinner tickets for members and their friends may be obtained from Dr. White, hon. sec. Dinner Committee, 43, Weymouth-street, W.

LAKE VYRNWY.

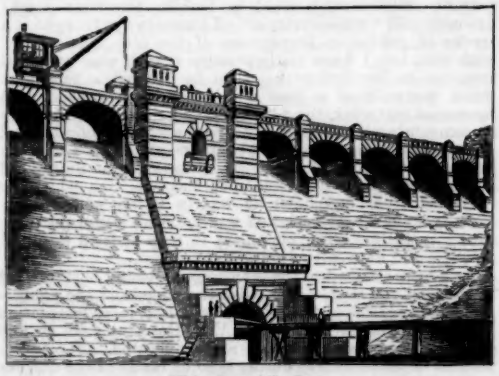
BY HUGH R. JONES, M.A., M.B., B. SC.

THE future growth and prosperity of our cities will depend in no small measure upon their present success in obtaining an adequate supply of pure wholesome water—so indispensably necessary to healthful life,—and Liverpool is to be congratulated upon being in the front rank of those cities which have recognised the necessity for this provision, and have already secured it. Lake Vyrnwy, the future water-supply of Liverpool, is the largest artificial lake in the world, and was formed by building a solid masonry dam 1173 feet long and 144 feet high, across the narrowest part of the upper valley of the river Vyrnwy. (See engravings.)



North-East end.

The valley is four miles and three-quarters long, and between a half and three-quarters of a mile broad. High hills, from 1300 to 2050 feet above sea level, rise abruptly on either side and at the upper end, so that it was found



Water-face of the Dam.

to be naturally adapted for a large reservoir. Indeed, there is reason to believe that during the glacial period a lake occupied the valley. Disintegration of the rocks continuing, the bar of rock which held back the water was worn away, and the bed of the ancient lake formed the bottom of the modern valley. The river Vyrnwy, one of the main tributaries of the Severn, rises to the east of the Berwyn range, and commences by the confluence of several mountain streams near the old village of Llanwddyn, Montgomeryshire, which has long since been covered by water. The capacity of the new lake is 13,125 million gallons, and this quantity will suffice, when certain additional works have been carried out, to give to Liverpool and adjoining districts a daily supply of 40 million gallons, though only one-third of this quantity will be delivered at present.

The water is exceptionally soft, and is perfectly free from animal contamination. It has a slightly yellowish colour in times of flood, owing to the peaty nature of a portion of the gathering ground. The colour will probably be lost after the water has been impounded for a time, partly by deposition of the peaty particles and partly by oxidation. The watershed has an area of 23,000 acres, and is thinly populated. The hills are not cultivated, and there are no mines in the vicinity. The rainfall is high and variable. The maximum recorded rainfall during the last ten years exceeded 118 in., and the minimum 49 in.

The following is an analysis (expressed in parts per 100,000) by Dr. Campbell Brown:—

Total solids in solution	5·00
Organic carbon	0·346
Organic nitrogen	0·034
Ammonia	0·003
Total combined nitrogen...	0·037
Hardness	1°
Chlorine	0·742
Sodium...	0·319
Potash	0·191
Magnesia	0·183
Lime	0·366
Alumina	0·227
Sulphuric acid	0·655
Silica	0·400

This was obtained by taking samples from the tributary streams, but a considerably better analysis will be obtained of the impounded water. The water began to be impounded in November, 1888, and 5400 million gallons are already gathered in the reservoir.

The aqueduct is sixty-eight miles and a quarter long—the longest ever yet constructed,—and commences at the straining tower, a tower built in the Mediæval style of architec-

ture, standing in the lake away from the disturbing influence of any stream. It will collect the water, whatever the level of the lake may be, at a short distance from the surface, where least matter is held in suspension, and where the oxidising action is greater than below. The water will also be strained, by which all the grosser particles will be removed and fish thus prevented from entering the aqueduct. The material used for straining is copper wire gauze, 14,400 meshes to the square inch; and it is believed that with such fine meshwork the foreign matter will lie rather on the surface than in the meshwork. It is intended to clean the strainers by passing water through them under pressure in the reverse direction. The pipe line consists of a concrete culvert in the bed of the lake, of three tunnels, and of a line of iron pipes which follow the undulations of the ground. As there is a difference of 550 feet of level between Lake Vyrnwy and the existing high level reservoirs at Prescot, where the distributing main begins, in order to avoid the necessity of employing exceptionally strong pipes, the pipe line has been divided into six sections by the construction of small subsidiary reservoirs or relieving tanks. The pressure of water at any spot of the pipe line will therefore depend merely upon the head due to difference of level between that particular spot and the relieving tank immediately above it. The pipe line crosses the rivers Weaver and Mersey, the Bridgewater Canal, and the Manchester Ship Canal, and to pass these obstacles considerable engineering difficulties have had to be overcome. Large filter beds and reservoirs have been constructed at Oswestry, so that there will always be a considerable volume of water in store at Oswestry and in the relieving tanks to tide over any delay in the delivery of water from the lake.

The works were proposed by Mr. G. F. Deacon in 1877, and were projected in his reports of that year and the following. In the autumn of 1879 Mr. Hawksley and Mr. Deacon became engineers of the undertaking, but in 1885 Mr. Hawksley retired from the work, since which time it has been carried on by Mr. Deacon solely. At one time nearly 2000 men were employed in the valley excluding an almost equal number engaged in constructing the aqueduct, and 700 are still engaged in completing the works. Only fourteen men have died from injuries received while at work (to whom a monument is being erected by their fellow workmen). In no case was any blame attributable to the corporation. An accident hospital, with eight beds, was provided. The general health of residents in the valley has been remarkably good. No infectious diseases occurred, except an outbreak of diphtheria last year (which was stamped out by isolating the cases as they occurred), and a solitary case of small-pox in 1884. Wooden huts, consisting each of a large living room, of two bedrooms, and a sleeping apartment for twelve single men, were erected by the corporation.

The old houses in the village have been dismantled, fired, and finally blown down by dynamite. All the bodies were removed from the old church and churchyard (which was closed in 1880) to a new cemetery below the dam, and all impurities in the bed of the lake have been removed to the greatest extent possible.

A new hotel, on an elevated site, commanding a magnificent view of lake, dam, and tower, is being erected for the accommodation of visitors. It is believed that Lake Vyrnwy will in time to come be much frequented by those who need a quiet holiday; for, apart from the existence of the artificial lake, the natural attractions of the Vyrnwy valley are by no means inconsiderable. The climate is bracing (the surface of the lake being 825 feet above sea level), and the valley remarkably healthy, few deaths occurring among the old inhabitants between infancy and a good old age.

It may be mentioned that the only means of access to Vyrnwy are *vid* Llanfyllin (a Cambrian railway terminus), or *vid* Bala; and, whichever route be chosen, a pleasant drive of ten miles over undulating country brings the visitor to the margin of the lake.

THE SWEATING SYSTEM.—A preliminary meeting of the Select Committee of the House of Lords on this question has lately been held. The Earl of Dunraven was elected chairman. It was understood that the committee will meet as heretofore on Tuesdays and Fridays, but no definite decision was arrived at on that point.

ADDRESS BEFORE THE BOSTON MEDICAL LIBRARY ASSOCIATION.[1]

By OLIVER WENDELL HOLMES, M.D., LL.D., &c.

WE reproduce the following from the *Boston Medical and Surgical Journal* of Feb. 7th:—

GENTLEMEN OF THE BOSTON MEDICAL LIBRARY ASSOCIATION,—The books which I have offered to the Association, and which you have kindly accepted, constituted my whole medical library, with the exception of a very few volumes, which, for special reasons, I retain for the present, and of a considerable collection of medical pamphlets, which I shall send if the librarian can find room for them. This collection has grown by a slow process of accretion during nearly threescore years. The first of these books which I remember owning is Bell's "Anatomy"; the last accession is the beautiful little volume which I bring with me this evening, "Elements of Pharmacy, Materia Medica, and Therapeutics," by William Whitla, M.D., physician to the Belfast Royal Hospital, fourth edition. I have not counted the number of volumes, but the librarian informs me that there are something over 900. The list of titles reaches 1231, but the same book is in many instances given under different headings. The oldest book in the collection is a black-letter copy of Avicenna, dated in 1490; the most recent, 1887; so that they cover very nearly the space of four centuries. Most of these volumes I have bought, but a considerable number have been presented to me by their authors or by friends. I trust that those of my friends who may chance to see one or more of the books they have presented me on these shelves will not think I have forgotten their kindness in allowing their gifts to follow the fortunes of the little mob of volumes in whose company they found themselves.

The most interesting parts of a miscellaneous medical library are its oldest and its newest portions. Between these is a long, dreary interval, filled up by books not old enough to be curious or even rare, and not new enough to represent the existing state of knowledge. I am thinking especially of works on practical medicine. We care nothing, or next to nothing, for the speculative notions of such writers as Forestus and Fernelius. The theories of Stahl and Van Helmont, of Hoffman and Boerhaave, the conflicts of the Brunonians and the adherents of Cullen, mean as little to the physician of the present as the farrago of remedies with which they puzzled the astonished and indignant viscera of their patients. Still, something may be gained from these obsolete and utterly neglected writers. They were not all fools because they had not the wisdom which comes with the knowledge of a later day. There were, and are always, men of common sense—good, strong, coarse common sense—in the medical profession. Sydenham was one of these. I believe I have hardly ever delivered a medical address in which I have not referred to the "roast chicken and pint of Canary" which he prescribed for a patient affected with what a Dublin physician might probably call "male hysteria." I have always thought it a stroke of genius in Dupuytren—if the idea was original with him, but I have an impression that it was borrowed from an earlier authority—when he ordered a patient to drink the milk of a goat which had been rubbed with mercurial ointment, the patient having a dread of mercury as commonly administered. That was a kind of infinitesimal dosing, and I have no doubt that the patient got as much good from the mineral in the goat's milk as the Sultan did from the drugs in the handle of the bat with which he exercised every day until he was in a free perspiration. But Sydenham's prescription was the best lesson the overdrugging doctors ever got, unless it may be from watchful mothers and keen-witted, observant nurses.

As I have referred to the infinitesimal dosing business, let me remind you that, if you wish to understand the pseudo-scientific vagaries of to-day, you will find more instruction in the "Ortus Medicinæ" of Van Helmont than in any other old work with which I am acquainted. The infinitesimal or make-believe dosing is to be found in the chapter entitled "Butler." Butler was an Irishman in a Belgian gaol, where Van Helmont found him. He had a pebble which he used to dip in oil, then take a teaspoonful of that

[1] Delivered to the Association at the formal presentation of Dr. Holmes's Medical Library, Jan. 29th, 1889.

oil and add it to a small flask of the same oil and apply one drop of this to the ailing part. Then he would give his pebble a lick with his tongue, and clap it in his waistcoat pocket. This whole chapter, "Butler," should be read by the student of Hahnemann and by all intelligent students of medical history. The doctrine of the "mind cure" is abundantly illustrated in other chapters of the "Ortus Medicinæ," the date of which in my copy, now yours, is 1652.

Do not look with contempt, then, on such of your old books as seem to be mere treasuries of unwisdom. The débris of broken systems and exploded dogmas form a great mound—a *Monte Testaccio* of the shards and remnants of old vessels which once held human beliefs. If you take the trouble to climb to the top of it you will widen your horizon; and in these days of specialised knowledge your horizon is not likely to be any too wide.

No doubt there are many rusty old volumes in this collection which will rarely, if ever, be taken from the shelves except to be spanked and dusted. Do not grudge them the room they take up. Once or twice perhaps in a score of years some curious student may open the book containing the record of cases treated by Riverius, as he called himself in Latin, a noted physician of the first half of the seventeenth century. He will see in the same pages one recipe with the cloven-footed ℞ which he uses in his own prescriptions, and another prescription with the astrological sign for Jupiter, from which it was imitated. He has hardly realised before, it may be, that in writing the letter for *Recipe* as he does, he is appealing to a heathen deity to bring good luck to his remedy.

There is a formidable phalanx of grand old folios which give dignity to the lighter volumes beneath which they gravitate to the lower shelves. There are the huge volumes of Galen, with the appalling "Index" of Brassavolus; there is the solemn "Sepulchretum" of Bonetus; there are the two stately and richly-dressed volumes of the "Artis Medicæ Principes," which came from the library of Jules Cloquet; there is the wonderful collection of rare and interesting cases of Schenckius; there is Ambroise Paré, a good copy in the original French, which is not always easily to be procured—my order was out some time in Paris before I could obtain it, and that was more than fifty years ago; there is Wigan's edition of Aretæus, a good specimen of what Oxford could do in the way of printing a century and a half or more ago. A little higher up in the shelves you will find Vanderlinden's Hippocrates, Cælius Aurelianus, Celsus, the works of Morgagni, the score of quartos in which Haller has left the impress of his lucid and richly stored intelligence, and many other works of earlier or later date which are not likely to be worn out by handling, but may now and then be consulted for some special purpose by a scholarly practitioner or a curious student of medical history.

More interesting than most of the old medical books are the illustrated works on Anatomy. The splendid plates of Albinus show the muscles as no other work that I am acquainted with has ever shown them. The old folio edition of Vesalius must be interesting to every student of anatomy. The figures in the huge volume of Spigelius will always attract attention for the grace and beauty of the females, who display their viscera as if they were their jewels and laces. These are not likely to be overlooked by the lovers of undisguised nature and naked truth. Mascagni's representations of the lymphatics, Soemmering's pictures of the organs of sense, Bonamy and Beau's coloured plates of the bones, ligaments, and muscles, and Hirschfeldt's and Leveillé's illustrations of the nervous system, are worthy of special notice. Among the general works which may repay occasional consultation I will only mention the entire series of the *British and Foreign Medical Review* while under the editorship of Sir John Forbes, and the "Compendium de Médecine Pratique," in eight large octavo volumes. I have spoken of a few of these books which occur to my recollection. The names of Avenburgger, Bayle, Corvisart, Andral, Louis, Chomel, Rostan, Bouillaud, are represented in a series of scientific and practical treatises, valued in their day and generation, not wholly valueless by any means at the present time.

But the practitioner of to-day who has a few manuals on his shelves, and takes one or more of the best journals, American or foreign—both if possible,—can get along with a very moderate library. A working physician is very apt to come under one of the two following categories: he is either an optimist, satisfied with his old remedies and formulæ; or he is in a state of chronic discontent with his drugs and mixtures, and constantly on the look out for something which *will* do what so many other things have promised to do and failed. New remedies keep coming up in the journals, like new shoots in asparagus beds; and they must have those that have come up last, as they want their asparagus cut fresh every morning.

Since medicine has run into specialties, as it did thousands of years ago in Egypt, there must be forming great numbers of private libraries, more or less complete on their particular subjects. We may hope that in time all the important branches of medical science and practice will be full represented on our shelves. But the enormous amount of material already accumulated in many special departments would be of comparatively little use without indexes to point out the way to find what is wanted. The great "Index Medicus" prepared at Washington, under the direction of the admirable Dr. Billings, is the master key to the storehouses of knowledge, which without it few would ever have even tried to open.

These books were very dear to me as they stood upon my shelves. A twig from some one of my nerves (as I remember saying long ago) ran to every one of them. From the time when I first opened Bell's "Anatomy" to that in which I closed my Sharpey and Quain and my Braithwaite's "Retrospect," they marked the progress of my studies, and stood before me as the stepping-stones of my professional life. I am pleased that they can be kept together, at least for the present; and if any of them can be to others what many of them have been to me, I am glad to part with them, even though it costs me a little heartache to take leave of such old and beloved companions.

MEDICAL AUTHORITIES' DISCIPLINE.

AT a meeting of the Executive Committee of the General Medical Council, held on Monday last, the following draft of a Bill to amend the law in relation to Medical Practitioners, prepared at the suggestion of the President by the legal advisers of the Council, was received and entered on the Minutes.

Be it enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same as follows:—

Powers of Medical Authorities.

1. (*a*) Any medical authority to which this section applies may, notwithstanding anything contained in any Act or Charter relating to such medical authority, for any of the causes mentioned in this section, but subject to the provisions of this section, withdraw, either permanently or for such period as the medical authority may think fit, all or any of the medical diplomas of such medical authority held by any medical practitioner. (*b*) The causes for which a medical diploma may be withdrawn under this section from a medical practitioner are where the practitioner has, at any time, either before or after the passing of this Act, or before or after obtaining any of the medical diplomas of the medical authority, been convicted, either in Her Majesty's dominions or elsewhere, of an offence which, if committed in England, would be a felony or a misdemeanour, or after due inquiry has been found by the medical authority to have been guilty of disgraceful or infamous conduct in a professional respect: Provided that no medical diploma shall be withdrawn, either temporarily or permanently, from any person on account of his having adopted or refrained from adopting any theory of medicine or surgery, or on account of a conviction for a political offence out of Her Majesty's dominions, or on account of a conviction for an offence which, though within the provisions of this section, does not, either from the trivial nature of the offence or from the circumstances under which it was committed, disqualify a person from practising in medicine, surgery, or midwifery. (*c*) Any medical diploma which has under this section been withdrawn temporarily or permanently from a medical practitioner by a medical authority may at any time, if the medical authority think fit, be restored. (*d*) The Privy Council may at any time, on a request by any medical authority for the application of this section to such medical authority, by an Order declare that this section, subject to any limitations or conditions which the Privy Council may think fit to impose, shall apply to such medical authority; and from and after the day named in such Order of the Privy Council this section shall, subject to the limitations and conditions imposed in the Order, apply to such medical authority; but this section shall not apply to any medical authority unless and until an Order of the Privy Council under this section has, on the application of a medical authority, been made applying this section to such medical authority.

Powers of General Council.

2. (*a*) Where, either under any power now or hereafter vested in any medical authority, or under this Act, any medical authority withdraws from any registered medical practitioner any medical diploma of such medical authority, the General Council may, if they think fit, direct the mention of such medical diploma to be erased from the name of the medical practitioner in the Medical Register. (*b*) Where, either

under any power now or hereafter vested in any medical authority, or under this Act, any medical authority restores to any registered medical practitioner any medical diploma of such medical authority which has been withdrawn, the General Council may, if they think fit, direct the mention of such medical diploma to be restored to the name of the medical practitioner on the Medical Register. (c) Where the medical diploma, or all the medical diplomas, entitling a registered medical practitioner to be registered has or have been lawfully withdrawn from such registered medical practitioner by the medical authority or medical authorities from whom such medical diploma or medical diplomas is or are held, the General Council may direct the name of the practitioner to be erased from the Medical Register. (d) Where the name of any registered medical practitioner has been erased from the Medical Register on the ground that the medical diploma or all the medical diplomas of such practitioner have been withdrawn, the General Council may, upon the restoration to such practitioner of the medical diploma or any of the medical diplomas which were so withdrawn, if they think fit, direct the name of such practitioner to be restored to the Medical Register. (e) Provided that no name or medical diploma of a registered medical practitioner shall be erased from the Medical Register on account of the adoption by him of any theory of medicine or surgery.

3. Where under section twenty-nine of the Medical Act, 1858, the General Council have power to direct the name of a registered medical practitioner to be erased from the Medical Register, the General Council may, if they think fit, direct the name of such registered medical practitioner to be erased for such period as the General Council may think fit, and may at any time restore the name of such medical practitioner to the Medical Register, subject to the performance by the practitioner of any conditions which the General Council may see fit to impose.

4. The medical diploma or medical diplomas of any medical practitioner whose name has been erased from or restored to the Medical Register may be withdrawn from or restored to such medical practitioner (as the case may be) by the medical authority or medical authorities from whom the medical practitioner held such diploma or diplomas.

5. The provisions of this Act shall, as far as applicable, apply in the case of colonial and foreign practitioners registered under the Medical Act, 1886, and the said lists of those practitioners in the same way as such provisions apply in the case of persons registered under the Medical Act, 1858, and of the register kept under that Act.

Miscellaneous.

6. Nothing in this Act shall affect or diminish any of the powers of the General Council in relation to the Medical Register, and the erasure of the names of registered medical practitioners therefrom under the Medical Acts, or any of the powers of any medical authority under any Act or Charter relating to such medical authority.

7. The printed Minutes of the General Council, purporting to be signed by the President of the General Council, and published by the General Council, shall be deemed to be evidence of the facts stated in such Minutes without further proof, unless the contrary be shown.

8. In this Act expressions shall have the same meaning as the same expressions have in the Medical Acts, and, unless the context otherwise requires, "Medical Authority" means any university, corporation, college, or other body within or without Her Majesty's dominions for the time being competent to grant a medical diploma or diplomas conferring on the holder thereof the right to be registered under the Medical Acts.

9. The Acts mentioned in the Schedule in this Act are hereby repealed to the extent mentioned in the third column of the said Schedule, provided that the repeal enacted by this section shall not affect anything done or suffered before such appeal takes effect, or any remedy or proceeding in respect thereof.

10. This Act may be cited as The Medical Authorities' Discipline Act, 1889, and shall be construed as one with the Medical Acts.

THE SCHEDULE.

Session and Chapter.	Title or Short Title of Act.	Extent of Repeal.
21 & 22 Vic., c. 90.	"The Medical Act, 1858."	Section Twenty-eight.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Leeds.—Dr. Goldie's quarterly report for the period October–December, 1888, shows that a large amount of excellent sanitary work is in progress. Thus, the houses inspected during that period were 10,325 in number, and other items of similar work were nearly as numerous, a constant preventive vigilance being thus maintained. Some 7650 articles were disinfected, in addition to a large number of rooms and entire houses. Inspection of common lodging-houses is real, as evidenced by the striking off from the register of some such premises; and, amongst other items of information, we are glad to note that vans and tents have been inspected under the Housing of the Working Classes Act (1885), that constant supervision is maintained over dairies, cow-sheds, and milk-shops, and that isolation of infectious cases in hospital is successfully carried out.

Aston Manor Urban District.—Mr. Henry May states that the general death-rate for 1888 was 14·8 per 1000, or 3·6 lower than the average for the ten years ending with 1881. This result is the more satisfactory when noted in connexion with the great and steadily maintained increase of population, which was 6426 only in 1851, and now stands at about 65,800. One-fifth of this population is in attendance at the elementary schools, and it is amongst this fifth that infectious disease is most prevalent. Indeed, in 1888, 62 cases of scarlatina, 29 of diphtheria, and no less than 445 of measles came under notice, all these diseases being largely limited to the school-going age. And not only so, but it is admitted that the schools are an undoubted means of disseminating infection. Mr. May therefore has, in common with other health officers, a feeling of strong responsibility as to the action needed as to schools, and he has so far worked most harmoniously with the school officers in the matter. But he tells us that when he recommended a temporary closing of some of the schools owing to the measles epidemic, the Aston School Board did not see their way to adopt his suggestions. This seems to us a case in which a suggestion which has failed should immediately have been followed by a representation to the sanitary authority to order the closure for a specified period under the Education Code. The infectious hospital continues to do excellent service both for Aston and the surrounding neighbourhood. Considerable improvements in the health aspects of house-building are in progress. There remain but few unmade and unsewered streets, and general activity is stated to have been maintained as to the general sanitary administration of the district.

Weston-super-Mare Urban District.—On the estimated population for 1888 the general death-rate was 12 per 1000, and the zymotic rate 1·09 per 1000. In the early part of the year scarlatina was prevalent, but Mr. C. V. Hitchins explains that, by using the existing powers as to school closure, and by the aid of the isolation hospital in the district, the prevalence was stayed. He also finds occasion to speak in terms of considerable commendation as to the action taken with a view to an improved new water-supply. As to this, we note that the authority have wisely purchased a large area of land near the pumping-station, in order to avoid any chance of accidental water-contamination, and it is to be hoped that a similar discretion will be exercised in locating the new cemetery. The public water-service is now laid on wherever local supplies are found to be contaminated, and general supervision as to nuisances is maintained. But a destructor is stated to be necessary in order to ensure the proper disposal of town and house refuse.

Stroud Urban District.—The need for an infectious hospital is again urged on this authority, and although a temporary one is referred to, we should hope that Stroud will make such permanent provision as will secure the ready isolation of all classes needing it. Mr. T. Partridge shows that the general death-rate has been diminishing almost continuously for many years, and that it was again very low last year. There is a good water-supply, but, notwithstanding this, polluted wells are resorted to by some. As to this, it is to be hoped that the measures adopted will secure the abandonment of such supplies before mischief has actually been brought about. New bye-laws are stated to be in course of preparation, but, although this matter must necessarily involve a number of points affecting health, the medical officer of health reports that he has not had a copy.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5995 births and 3640 deaths were registered during the week ending Feb. 23rd. The annual rate of mortality in these towns, which had been 19·1 and 19·0 in the preceding two weeks, further rose last week to 19·9. During the first eight weeks of the current quarter the death-rate in these towns averaged 21·2 per 1000, and was 2·7 below the mean rate in the corresponding periods of the ten years 1879-88. The lowest rates in these towns last week were 10·7 in Brighton, 15·1 in Bradford, 15·6 in Nottingham, and 16·8 in Hull. The rates in the other towns ranged upwards to 27·5 in Blackburn, 28·2 in Oldham, 28·6 in Manchester, and 29·0 in Preston. The deaths referred to the principal zymotic diseases in these towns, which had declined in the preceding six weeks from 644 to 399, were last week 392; they included 175 from measles, 80 from whooping-cough, 39 from diphtheria,

37 from diarrhœa, 34 from scarlet fever, 27 from "fever" (principally enteric), and not one from small-pox. No death from any of these principal zymctic diseases was recorded during the week either in Portsmouth or in Derby; while they caused the highest rates in Manchester, Oldham, and Blackburn. The greatest mortality from measles was recorded in Salford, Wolverhampton, Bristol, Manchester, Oldham, and Blackburn; from whooping-cough in Oldham, Preston, and Nottingham; and from scarlet fever in Blackburn. The mortality from "fever" showed no marked excess in any of these large towns. The 39 deaths from diphtheria in the twenty-eight towns included 27 in London, 6 in Salford, and 2 in Manchester. No death from small-pox was registered in any of the twenty-eight great towns; and no small-pox patient was under treatment at the end of the week in the Metropolitan Asylum Hospitals, or in the Highgate Small-pox Hospital. The number of scarlet-fever patients on Saturday last in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 643, against numbers ranging in the preceding fourteen weeks from 980 to 653; 53 cases were admitted during the week, against 65, 52, and 43 in the previous three weeks. The deaths referred to diseases of the respiratory organs in London, which had been 340 and 376 in the preceding two weeks, declined again last week to 362, and were 138 below the corrected average. The causes of 73, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Bradford, Nottingham, Derby, Wolverhampton, and Plymouth. The largest proportions of uncertified deaths were registered in Sheffield, Huddersfield, and Norwich.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·3 and 21·6 per 1000 in the preceding two weeks, further declined to 21·2 in the week ending Feb. 23rd; this rate exceeded, however, by 1·3 the mean rate during the week in the twenty-eight large English towns. The rates in these Scotch towns last week ranged from 9·5 and 13·3 in Perth and Greenock to 21·0 in Aberdeen and 26·2 in Glasgow. The 542 deaths in the eight towns showed a further decline of 11 from the numbers in the preceding two weeks, and included 31 which were referred to whooping-cough, 22 to measles, 14 to diphtheria, 7 to diarrhœa, 4 to "fever" (principally enteric), 2 to scarlet fever, and not one to small-pox; in all, 80 deaths resulted from these principal zymotic diseases, against 61 in each of the preceding two weeks. These 80 deaths were equal to an annual rate of 3·1 per 1000, which exceeded by 1·0 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 22 and 18 in the previous two weeks, rose last week to 31, of which 26 occurred in Glasgow, 2 in Dundee, and 2 in Paisley. The 22 deaths from measles were within one of the number in the previous week, and included 20 in Glasgow. The 14 deaths from diphtheria showed a further increase upon recent weekly numbers; 6 occurred in Glasgow, 3 in Edinburgh, 2 in Dundee, and 2 in Leith. The fatal cases of diarrhœa, "fever," and scarlet fever differed but slightly from the numbers in recent weeks. The deaths referred to the principal diseases of the respiratory organs, which had declined in the preceding six weeks from 160 to 118, further fell last week to 112, and were 23 below the number returned in the corresponding week of last year. The causes of 54, or 10 per cent., of the deaths registered during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 24·5 and 29·4 per 1000 in the preceding two weeks, further rose to 31·0 in the week ending Feb. 23rd. During the first eight weeks of the current quarter the death-rate in the city averaged 29·1 per 1000, the mean rate during the same period being 20·0 in London and 19·1 in Edinburgh. The 210 deaths in Dublin, which showed a further increase of 11 upon the numbers in the preceding two weeks, included 5 from measles, 4 from "fever" (typhus, enteric, or ill-defined), 3 from whooping-cough, 2 from diarrhœa, and not one from small-pox, scarlet fever, or diphtheria. Thus the deaths referred to these principal zymotic diseases, which had been 14 and 12 in the previous two weeks, rose again last week to 14; they were equal to an annual rate of 2·1 per 1000, the rates from the same diseases being 2·0 in London and 1·2 in Edinburgh. The fatal cases of measles, "fever," and diarrhœa exceeded the numbers returned in the previous week, while those of whooping-cough showed a decline. Five deaths from violence and 3 inquest cases were registered; and 74, or more than a third, of the deaths occurred in public institutions. The causes of 15, or more than 7 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Major John Leader is granted retired pay (dated Feb. 27th, 1889), and Surgeon Henry Vincent Dillon to retire on temporary half pay (dated Feb. 28th, 1889).

ARMY MEDICAL RESERVE OF OFFICERS.—Acting Surgeon Andrew Knox Rickards, 3rd Volunteer Battalion, the Hampshire Regiment, to be Surgeon, ranking as Captain (dated Feb. 27th, 1889).

ADMIRALTY.—The following appointments have been made:—Surgeons Octavius W. Andrews, M.B., Charles J. S. Kelsall, Edward T. Cook, Edgar E. Powell, Lawrence Bidwell, Edward H. M'Sherry, M.D., Walter J. Bearblock, William Hackett, M.D., Charles J. Matthew, M.B., John Grant, M.B., George A. Holroyd, Thomas Austen, and Joseph Chambers, B.A., M.B., to the *Duke of Wellington*, additional for Haslar Hospital (dated March 4th, 1889); Fleet Surgeon George Bolster to the *Bellerophon* (dated March 1st, 1889); Fleet Surgeon Richard W. Coppinger to Haslar Hospital (dated March 1st, 1889); Surgeon Thomas R. Pickthorn to the *Bellerophon*, undated; Surgeon John L. Thomas to the *Bellerophon* (dated March 1st, 1889); Surgeon Thomas C. Rowland to the *Britannia* (dated March 1st, 1889); Surgeon Edward Fergusson to Bermuda Hospital, undated; Surgeon John Menary, M.D., to the *Urgent*, and Surgeon Jas. S. Wray to the *Neptune* (both dated March 1st, 1889); Staff Surgeons Miles O'C. M'Swiny and Walter G. Oxford to the *Comus;* and Staff Surgeon George R. D. Charlton to the *Emerald*.

Correspondence.

"Audi alteram partem."

DR. CRUISE ON IRRIGATION OF THE BLADDER IN CYSTOSCOPY.

To the Editors of THE LANCET.

SIRS,—Dr. Cruise has added to the debt of gratitude which all who work at inspection of the bladder owe to him for his improvements of Désormeaux's endoscope, by writing the description of his successes and improvements in the visual examination of that organ which appears in THE LANCET of Feb. 23rd, p. 372. It is interesting as a historical narrative of the early progress made by Dr. Cruise in this department of surgery. For my part, I used his instrument for several years, and demonstrated its value to students and others who attended the practice of the Lock Hospital at that time. I venture to think that I even added a small improvement to it, by replacing the cumbrous lamp with a small gas jet. The apparatus, thus modified, used to be figured in Sir Henry Thompson's work on the urinary organs, until replaced by drawings of better instruments. I have the endoscope still, and intend to offer it to some institution possessing a museum of obsolete surgical instruments. Several years ago, I abandoned Cruise's endoscope for Grünfeld's, a much more handy apparatus. That is now, in its turn, laid aside for the Nitze and Nitze-Leiter instruments, which have made the visual study of urethral and vesical disease in the living body almost as easy as it is on the dead body, while giving much more accurate information than is possible for the latter means to do.

But should not have troubled you with this letter were it not clear that Dr. Cruise has not grasped clearly the whole advantage of the little addition I made to Nitze's cystoscope. Dr. Cruise's plan only allows him to wash out the contents of the bladder after they have become turbid.

To do this, he must interrupt his observation while he introduces the catheter which flushes out the turbid contents. By the plan I have contrived, with the help of Messrs. Meyer and Meltzer, a continuous flow of clear water is maintained while inspection is going on, and therefore the turbidity that results from bleeding or from escape of pus from pouches or saccules of the bladder is continually washed away. The communication from me which you printed in THE LANCET of Jan. 26th, 1889, p. 169, attracted the attention of Dr. Nitze himself, and induced him to write me a kind letter, in which he acknowledged that I have forestalled him in an improvement of his instrument. Dr. Nitze also gives the good news that he is making a new form of the cystoscope, which will deliver into the bladder during inspection a current of water that will do all that I have tried to do, and in a better way, inasmuch as the stream will play directly over the prism of glass through which the light thrown from the surface of the bladder passes to the eye of the observer, and thus keep the prism quite clear of mucus as long as it is in the bladder.

I am, Sir, yours &c.,

Wimpole-street, Feb. 25th, 1889. BERKELEY HILL.

COW-POX AND SMALL-POX.

To the Editors of THE LANCET.

SIRS,—As Dr. Wilks allows that the pathology of cow-pox and small-pox is still open to discussion, I am tempted to reply to some of the remarks in his letter. I cannot understand what Dr. Wilks means by saying in his letter that there is no such disease as cow-pox in cattle. Ceely describes this disease most minutely, and satisfied himself that it occurred primarily in cows after parturition, and from them was transmitted to other cows in milk. Bulls would naturally escape, unless accidentally inoculated from the cows. Ceely suggests one or two reasons why the udder should be affected. I cannot believe it possible for anyone to maintain that there is no such disease as cow-pox in cattle, if they have read the whole history of the disease, and ended up by studying that accurate and exhaustive account of it given by Ceely in the Transactions of the *Provincial Medical and Surgical Journal* for 1840. He heads his article by a quotation from Montaigne: "Que chacun dise ce qu'il sait, tout ce qu'il sait, et rien que ce qu'il sait."

The Pasteurian theory is also against Jenner's view of the identity of the two diseases. A modified virus always has a tendency to suddenly assume its former virulence. Now, if cow-pox is modified small-pox, it is an exception to this rule; for cow-pox, although it has been inoculated for nearly a century, has never reverted to its old form, small-pox. As a matter of fact, there is nothing in Jenner's writings to suggest that he ever originated the idea of their identity. A very significant fact, which careful researches are bringing to light, is that cow-pox always arises independently of small-pox.

With regard to the anatomy of the two eruptions, it is with very great diffidence that I differ from so eminent a pathologist as Dr. Wilks. He, no doubt, has seen twenty cases of small-pox where I have seen one. But those cases I have seen have impressed upon me the opinion that the two eruptions only bear the most superficial resemblance to one another. Neither I nor, I suppose, Dr. Wilks have seen the natural cow-pox, but Ceely says it is only at a given period they are at all alike—viz., at the papular stage; after this they are extremely divergent.

Jenner's test experiments with variola appear conclusive; but it must be admitted that the experiments of Ceely, a most accurate observer, were not equally conclusive; and we all know that experience has much modified Jenner's conclusion: Jenner believing that after one inoculation we were "for ever after" protected from the infection of small-pox; whereas, now we can only rely on a temporary protection. This, however, is not so interesting to me, as I am only dealing with the pure pathology of the two affections.

I quite agree with Dr. Wilks that very few people know anything about this subject; in proof of which is the fact that writers quote amongst their authorities one Badcock, a chemist who sold lymph, and who has given no description of the disease he dealt with, and no account of how he conducted his experiments. Yet this lymph, like all the other lymphs now in use in this country, has never been put to the variolous test.—I am, Sirs, yours faithfully,

Feb. 25th, 1889. H. H. TAYLOR.

THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—As you have taken much interest in the dispute between the Members and Fellows of the College of Surgeons and the Council of the same, I enclose a copy of my reply to the circular letter embodying the resolution of the Council which you have already published. When I received it I was in utter ignorance as to what it could possibly mean. Now, having received full information and recognising the extraordinary nature of the action of the Council, my solicitors have issued writs to each member of that body individually; in the first place for a restrictive injunction, and in the second place for an action for damages for libel, the damages being placed at £25,000.

I am, Sirs, yours truly,

The Crescent, Birmingham, Feb. 27th, 1889. LAWSON TAIT.

[COPY.]

DEAR MR. TRIMMER,—The sentiments evolved in my mind by your letter are but feebly expressed by the word astonishment. Let me, in the first place, say that I am resting here, the victim of a poisoned operation wound, with swollen glands which may indicate the beginning of an illness of a serious kind, and of which it is at present impossible to see the end. I am therefore quite likely to be unable to attend to any serious business for some time. Let me further say that I am quite unconscious of having placed myself in the position of having incurred any legal penalty at the hands of the Council of the College of Surgeons, and that I deny the position altogether. Finally, if such should be the case and without prejudice, I claim the right to be heard by counsel or in person, as is customary under all circumstances of the kind, provided that it does not prove to be better to remove the matter into the public courts of justice. In any case, my solicitors are Messrs. Johnson and Co., 36, Waterloo-street, Birmingham, to whom you may make any further communication as directed by the Council.

I am, dear Mr. Trimmer, yours truly,

(Signed) LAWSON TAIT.

Buskett Fletchwood, Lyndhurst-road, near Southampton, Feb. 24th, 1889.

HOSPITALS AND WELL-TO-DO PEOPLE.

To the Editors of THE LANCET.

SIRS,—The question of *gratuitous* medical and surgical advice at hospitals and dispensaries is assuming such vast proportions, and has such an all-important bearing on the medical profession, especially on the younger members, that it is time the subject was taken up and freely and openly discussed.

So long as the recipients of *gratuitous* advice at medical charities were confined to the *poor*, the members of the medical profession were most willing to give their advice and skill gratuitously, though even in that case they were fairly entitled to remuneration; but, to their shame, it is now recognised at many hospitals and other medical institutions (not charities) that *well-to-do* people should be pauperised by encouraging them to seek gratuitous medical and surgical advice at such institutions, and it is high time the profession should speak out and at once put its foot down and stamp out such an abominable and unfair mode of depriving so self-denying and intelligent a body as the medical profession—a profession which is commonly called "a noble one"—of its legitimate mode of gaining its daily bread. During the last quarter of a century a very wrong estimate has gained possession of the public mind in reference to the uses of hospitals. Such institutions were originally founded in order that the *poor*, and the *poor only*, should obtain gratuitously skilled advice and assistance from the medical profession in intricate and difficult medical and surgical cases, and in accidents; and so long as they were confined to such uses, and to that portion of the community *only*, they were grand institutions; and notwithstanding the magnificent and noble work which for this purpose the medical profession has gratuitously performed during the whole of the present century, I am quite satisfied similar services for the poor in the future will not be withheld. But it must not be forgotten that the admission of people of the better class into hospitals in addition to the poor, by causing overcrowding, has the effect of contaminating the atmosphere of the whole building, frequently preventing a successful

result among the more difficult and more suitable cases belonging to the poor, and it can only be done by the sacrifice of the really deserving objects amongst the poor.

If the rich really wish to get into hospitals when suffering from disease, surely they can get up such institutions on the limited liability principle, where they might, as they ought to do, pay for the benefits they receive, even though those benefits might be medical and surgical advice and skill, just as barristers, lawyers, and others would be paid if their advice were required. It is a question of daily bread with the medical profession, and it is in no way connected with benevolence or philanthropy, and I am glad to find that the Master of the Rolls has given a seasonable and just definition of the word "charitable" in the eye of the law. The paraphrase of the word "charitable," he says, "is the purpose of assisting people to something which the donor intends shall be given to people which, in the opinion of the donor, cannot, from poverty, be obtained without his assistance."

I am, Sirs, yours truly,

E. CHESSHIRE, F.R.C.S.,
Consulting Surgeon to the Birmingham and Midland Eye Hospital.

Birmingham, Feb., 1889.

P.S.—By a recent number of the *Morning Post* I see that an inquest has been held on a *retired* jeweller, who died, whilst under treatment for kidney disease, in the University College Hospital. Such perversion of the uses for which hospitals and other similar charitable medical institutions were founded must have the effect of bringing them into discredit, and I am assured, when tickets of admission are required, that the *poor* now find great difficulty in obtaining them, while *well-to-do* people get them easily enough.

MIDWIFERY FORCEPS.

To the Editors of THE LANCET.

SIRS,—I doubt if Mr. Blenkarne's letters will convince any of your readers of the "extreme utility" of his "invention," at least as an obstetrical instrument. What does his "invention" consist of? Is it midwifery forceps, which date from the sixteenth century, or the design of shortening the upper blade by means of a hinge in the handle, so as to facilitate its insertion without drawing the patient to the edge of the bed? This modification is, I believe, my original idea; the mechanism of the hinge itself was constructed by Mr. Coxeter under my direction (vide THE LANCET, March 5th, 1887); I beg to substantiate all that I said in my letter of Feb. 2nd, but I took it for granted that the patient would be supposed to be lying in the usual obstetric position of this country (one cannot go into details where space is so valuable). It must, however, be patent to all in this type of instrument that the handle—rigid to forward pressure, but flexing "backwards" in order to shorten the blade, without any obstacle to its action—must be practically superior to one which flexes "forwards," which will yield to forward pressure at a critical time, and which must come against the thighs of the patient at the moment of introduction. It is altogether a matter of choice or use as to which blade should be introduced first, but, as it is generally admitted that the right is the more difficult, I suggest that it is a good plan to overcome the main difficulty early in any operation, so that the succeeding steps may be rendered easy. As regards the photograph of my instrument, which Mr. Blenkarne had so carefully taken, I still feel that it does not convey an accurate representation, and also that his "invention" is but a perversion of my design. I had no idea of the use to which Mr. Blenkarne intended to put my forceps when they were borrowed, but I wish him and his instrument all success.

I am, Sirs, yours faithfully,

Mecklenburgh-square, Feb. 15th, 1889. WM. D. HASLAM.

*** We cannot insert more letters on this subject.—ED. L.

THE BIRMINGHAM WORKHOUSE INFIRMARY.

To the Editors of THE LANCET.

SIRS,—All devotees of the Birmingham Workhouse Infirmary must feel an accumulating debt of gratitude to your journal for the masterly manner in which its plans and arrangements have been dealt with and its defects and deficiencies explained. It is to be regretted that, as the outcome of this, amendments have neither been initiated nor even openly suggested and discussed by the controllers of that vast institution. Now, as an outsider interested in this branch of work, I ask, Why?—and leave it to your readers to decide the source of obstruction, whether Local Government Board, guardians, ratepayers (whom the latter represent), or the medical officers themselves. Delay is dangerous, and the guardians—when they state that, if after a trial the arrangements for medical attendance are found to be in any way wanting, they are prepared to increase it as may be necessary—appear to be complacently awaiting some serious fatality under the present system before taking the responsibility of adopting the course laid down in your leading article—viz., the increase of the medical staff. Though no very effectual remedial measure has been so far mooted, it would be ungenerous to ignore the efforts of Dr. Suckling to extenuate, and Mr. Tait to redress, the present mode of management. Dr. Suckling boldly defended and eulogised the organisation in its entirety in a letter in your issue of Dec. 29th, but since the correspondence of Jan. 5th, which drew attention to the statements it contained, he has not, beyond referring to the "Christmasing" of the opening ceremony, proffered further information. Mr. Tait has made a proposal, which has been rejected, to introduce an honorary consulting staff (THE LANCET, Jan. 26th, p. 182). Now I believe the inaction of the guardians is in view of economy, and therefore suggest what seems to me an easy and practical solution of the difficulty, as these appointments are valued as fields of clinical experience more than for the emoluments attached to them. I venture to think that a staff of four visiting officers (with an honorarium of £100 a year)—i.e., an addition of two officers to the present staff—would work much more advantageously both for the institution and themselves, as by this means the total expense to the ratepayers would be increased from £350 to £400 a year, or £50 a year in all; and the patients would receive double the attention they now have.

I am, Sirs, yours truly,

Feb. 20th, 1889. A VISITING MEDICAL OFFICER.

*** In publishing the above letter, we desire to state that the willingness of medical men to take appointments of the nature indicated is no sufficient reason for the guardians to obtain medical services at less than their proper value. There is no ground for the exercise of charity in regard to the medical care of the sick in the Birmingham Infirmary, and the remuneration should be such as would properly compensate the holder of the office for the demands made upon his time.—ED. L.

PARALYTIC DEFORMITY OF THE FOOT.

To the Editors of THE LANCET.

SIRS,—Mr. F. R. Fisher, in his article on the above subject in your issue of January 19th, speaking of Talipes Arcuatus, omits to mention a condition of slight calcaneus that often coexists. It is somewhat doubtful whether this is secondary, the contraction of the plantar fascia eventually drawing down the heel; or primary, the dropping of the heel necessitating an increased arching of the foot to bring the front part upon the same level. From examination of a number of these cases, I am inclined to think that the latter is frequently the cause of the contraction, for I have noticed that the calf muscles of the affected legs are often less developed, and in such cases I have experienced the best results (after division of the plantar fascia) from the use of an instrument attached to the boot with a spring lock to prevent undue flexion of the foot for a considerable time, together with exercises and massage to the gastrocnemii, at the same time insisting on the ankle-joint being fixed by one hand supporting the heel during the necessary daily manipulations at the transverse tarsal joint.

I am, Sirs, yours faithfully,

EDWARD L. FREER,
Hon. Surg. Roy. Orthopædic Hosp., Birmingham.

Feb. 14th, 1889.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The quarterly meeting was held on Tuesday, Feb. 26th, in the Medical Society's rooms, Chandos-street. The president, Dr. B. W. Richardson, showed Allen's pump and injector. Dr. Walter Pearce then read a paper on Toxic Hysterical Paralysis, in which he narrated three cases, one probably due to alcohol and one to bisulphide of carbon, characterised by hemiplegia or local paralysis with hemianæsthesia, and restriction of the field of vision. A discussion ensued.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Carlisle Dispensary.

THE report for the past year of the Carlisle Dispensary shows that 3006 cases had been treated therein. Of these, 1501 were home patients and 1505 were out-patients. Ninety-three deaths took place during the year, this being the lowest death-rate for several years, although zymotic diseases were high. Some dissatisfaction was expressed at the meeting at the new mode of dividing the Hospital Sunday and Saturday Fund. And as regards a scheme mooted to make the institution a provident dispensary, it was thought that, if the infirmary admitted patients free and the dispensary made a charge, the result would be that the patients would all be transferred to the infirmary, and the objects of the dispensary as a charity would be frustrated.

Newcastle and Gateshead.

The annual meeting of the Gateshead Dispensary was held last week, and the report showed that the number of casual cases treated, including accidents and dental cases, was 11,334, as against 11,155 in the previous year. It is satisfactory to hear that, notwithstanding this very large amount of work done, the treasurer's statement shows a useful balance in favour of the institution. The Children's Hospital at Gateshead has also held its first annual meeting, and the reports presented were very satisfactory for a new institution. Fourteen beds are now available, but the requirements of the town and district will need at least fifty. The Earl of Ravensworth remarked "that with care and prudence, and if they did not stretch their net too wide at first, they would go on and prosper, and ultimately they would cope with the wants of that industrial population." The Local Government Board has written to the Newcastle guardians giving consent to the allowance of a superannuation pension of £80 per annum to Mr. Nicholas Hardcastle, their late surgeon. Everyone will be pleased with this termination to a protracted and painful controversy. With regard to the vacant chair of Psychological Medicine at the Newcastle College of Medicine, the name of Dr. MacDowall, of the Morpeth Asylum, is freely mentioned.

Sunderland.

As I expected, the Hospital Sunday collections show an aggregate increase over last year's.

A Windfall for the Huddersfield Infirmary.

On Saturday morning last a parcel wrapped in a piece of dress lining was found by a porter at Huddersfield Infirmary. It contained 225 sovereigns. A few years ago a parcel of 284 sovereigns was left at the institution in the same mysterious and anonymous way.

Newcastle-on-Tyne, Feb. 28th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Conversazione at the Royal College of Physicians.

THE principal event of the Edinburgh medical world last week was the conversazione given by the Royal College of Physicians on Thursday evening. Last year there was some talk of a similar gathering in the Laboratory at Lauriston-lane, but for some reason or other the invitations were recalled. This year, however, arrangements were made to hold the meeting in the Physicians' Hall, Queen-street, and the success of the conversazione was assured, for there are few buildings so well adapted for the purposes of reception as are the beautiful college premises. At 8.30 the President, Dr. R. Peel Ritchie, supported by the Vice-President, Sir Douglas Maclagan, and the Treasurer, Dr. P. A. Young, began to receive the guests, and during the next hour and a half some thousand of these, consisting of Edinburgh scientific men and their wives and friends, were announced. The rooms were beautifully decorated, and every arrangement had been made to ensure the amusement and comfort of the visitors. In the new library a small string band and piano went through an excellent programme of music. In the large room on the basement floor, lantern demonstrations on coral reefs and deep-sea deposits, on brain sections and the source of the Nile, on the Central African slave traffic, and pathological sections, were given at intervals during the evening; and much interest was aroused in a small side room, especially amongst the ladies, by an admirable demonstration of the circulation of the blood as seen in the web of the frog's foot, given by Dr. James Foulis. In the large reception hall there were numerous exhibits, among the more striking of which were physiological and photo-micrographic apparatus, as shown by the Laboratory Committee (Dr. Milne-Murray, Mr. William Hume, Dr. John Gibson, and others), and electrical apparatus by Mr. H. Fleming, Mr. K. Schall, and Dr. Milne-Murray. Professor Crum Brown exhibited casts in fusible metal of the internal ear and apparatus to show the effect of inertia in indicating a change of rotation to illustrate the mechanism of the semicircular canals of the internal ear. This he managed to demonstrate by means of a gas flame, which was evidently sensitive to very slight changes in movement and inertia. Dr. R. W. Felkins' Central African curiosities and photographs, the *Challenger* exhibit, Mr. Andrew Pringle's exquisite photo-micrographs of diatoms and micro-organisms, and Professor McIntosh's collection of food fishes were all centres of marked interest. In the museum the celebrated Martius collection of materia medica attracted considerable attention, as did the exhibits placed there by Professor Bayley Balfour and Dr. T. A. G. Balfour, Professors Sir Douglas Maclagan and Chiene, and by other Fellows of the College and their friends, the most novel amongst these being some splendid drawings of bacteria from drinking-water in Malta and of bacteria cultivations from cases of Malta fever by Surgeon D. Bruce, and a series of specimens illustrating the histology of cetaceans by R. W. Gray, Esq. The whole entertainment was a great success, and the College may fairly be proud of its first attempt at this form of entertainment.

The Duke of Argyll and the Edinburgh Students.

It would be well if some such tonic as that administered by the Duke of Argyll to the Edinburgh students could be repeated at regular intervals, for, with the present tendency to the metaphysical side of science, nothing could be more timely than the address on the love of truth for its own sake and some of the methods for the attainment of such truth given by his Grace. Adding to Lewis's definition of "truth," he pointed out that it was the correspondence between the order of thought within us and the order of thought in the world outside us. In order to attain to a knowledge of this truth it was necessary to wield in their investigations the great weapon of analysis, especially in the use of words and phrases, and to avoid all those "words" which, according to Bishop Barclay, "have ruined and overrun all science." Many of our greatest philosophers and biologists had not been able to shake themselves clear of these "words," and it was only by a long and strict course of training in careful analysis that any scientific man could free himself from the loose use of words and vague definition of terms. "Let them be eager," said the lecturer, "not only in the pursuit of new truths, but also in the defence of the old; let them use all the faculties which God had given them, and to be sure, above all things, that there was a continuity in error as well as a continuity in truth, and that as truth was ever leading to something higher, so error was ever leading to something lower."

The late Dr. Alexander J. Sinclair.

It was with deep regret that Dr. Sinclair's numerous friends heard of the fatal termination of his illness on Saturday morning. Many will miss the keen, shrewd, but kindly face which for some time past has been so well known in medical and obstetrical circles. He was a man in the prime of life, and was just commencing to reap the reward of the work of an able man. He was a prominent member of several of the medical societies, was vice-president of the Obstetrical Society, and was one of the local examiners for the single and double qualification. As a fuller obituary notice will probably appear, it is now sufficient to speak of the profound grief caused by the sad event, and of the sympathy everywhere expressed for those left to mourn him.

Edinburgh, Feb. 25th.

GLASGOW.

Association for Relief of Incurables.

This Association in 1888 had under its care as in-door patients 107 cases; 16 deaths had occurred. The out-door

pensioners numbered 200. Since its formation fourteen years ago the Association has given pecuniary assistance to 698 out-patients and 312 in-door patients; 11 female patients and 8 male have been in the home for over ten years. The financial position of this useful institution is considered satisfactory.

Pathological and Clinical Society.

A special meeting of this Society for the exhibition of specimens "illustrative of healing and healed pathological lesions" was held on Jan. 28th. The exhibitors were Professor Cleland, Dr. Coats, Professor Gairdner, Dr. Newman, Dr. Wm. Russell, and Dr. G. Sims Woodhead. In the first group of exhibits were specimens showing the healing of pneumothorax and empyema; in the second, compensatory or restorative new formation in organs to supply deficiencies resulting from atrophy or loss of substance; in Group 3, fœtal restorations, as after spontaneous amputations of limbs in utero; in Group 4, healing of aneurysms and of vascular obstructions, chiefly aneurysms filled with laminated clot, and some specimens of healed embolic lesions; in Group 5, healing of lesions of phthisis, especially of large cavities—a specially rich and valuable collection of specimens; in Group 6, healing of ulceration &c. in the stomach, intestinal canal, and other abdominal organs; in Group 7, a number of miscellaneous specimens. The meeting proved to be one of singular interest to the members. At the meeting on Feb. 11th there were shown, among other specimens, one of primary tuberculosis of the kidney, with obstruction to the ureter and secondary ulceration of bladder. Dr. Finlayson also showed specimens of the larvæ of a dipterous insect (probably Anthyomia canicularis), passed alive in swarms from the intestine of a man. The meeting on Feb. 28th is to be devoted to the exhibition of rare and interesting specimens of skin disease.

Health Statistics.

The deaths registered in the city during the fortnight ending Feb. 9th numbered 528, and the death-rate was 26 per 1000 living. There were 40 cases of fever under treatment, 3 of typhus, and 37 of typhoid fever. One of the difficulties experienced in dealing with fever is thus described by Dr. Russell: "We had some trouble with two of these cases of typhus, which occurred in a house let in lodgings at 57, Princes-street. It was overcrowded. An inmate was removed with typhus. The occupier was under medical care for disease of the lungs, but was found to be dying of typhus. After his death it was proposed to hold a wake, but the epidemic officers removed the body, which was retained at Belvidere until the interment. The inmates were taken to the Reception House, but so intolerable was their drunken and riotous conduct that as soon as all their personal clothing had been disinfected they were turned out."

Glasgow University Magazine.

Evidence of the abundance of life which has been manifested in the University of late years is found in the appearance of this magazine, conducted under the auspices of the Students' Representative Council. It is published weekly, and is obviously in vigorous hands. It is satisfactory to note the extent to which medicine is represented in its columns. Two of the most important articles which so far have appeared are—one by Professor Young, on "The Treasures stored up in the Hunterian Museum"; the second by Mr. William Butler, on "Conventionality in Medicine." The latter is particularly suggestive, pointing out some of the conventionalities students make acquaintance with: the examination system, which modifies in many unfavourable ways his course of study; specialism; the habit of copious drugging; the craze for fads; the habit of looking on patients as cases. The magazine promises well, and cannot fail, if properly managed, to have a favourable influence on student life in the University. May it have a long and useful career.

Dr. Macewen on Aneurysm and Epilepsy.

At the recent meeting of the local branch of the British Medical Association one of the most interesting demonstrations was that by Dr. Macewen. He showed, first, a man who had been subject to epileptic seizures for many years. A year ago Dr. Macewen removed a tumour from the cerebrum, with the result that the seizures have entirely ceased. The second subject demonstrated was a new method for the cure of aneurysm, in which the object of the surgeon is to produce in the cavity, not blood-clot, but a "white thrombus" of connective tissue. This is accomplished by passing needles into the aneurysm in such a way as to pass through one wall of the sac and just to touch the lining of the opposite wall; the current of blood causes an oscillation of the needle and a number of fine scratches on the inner surface of the endothelium, irritating it slightly and leading to the proliferation of leucocytes. From these connective tissue is formed, and a white fibrous mass develops on the inner surface of the sac. The irritation is repeated at intervals of days, the needle being introduced at different spots. The result is the formation of a strong layer of connective tissue, which is firmer than red clot, and involves no danger from embolism.

Glasgow, Feb. 25th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Dublin Hospital Sunday Fund.

THE annual meeting of the committee of this Fund was held on the 25th inst. The report of the Council showed that the total amount of contributions to the Fund for 1888 was £4096 10*s.* 3*d.*, being an increase of £139 0*s.* 1*d.*, as compared with the previous year. Considerable advance has been made in the improvement of the nursing in the participating hospitals, and the Council believe that a large share is directly due to the steps taken by the managers of the Fund in bringing pressure to bear on the hospital authorities for the improvement of nursing. The Council are, however, not yet convinced that the nursing arrangements are as perfect as they might or ought to be; but when the advantages of the improvements already carried out are fully realised, they believe that continued advancement will take place without the aid of much, if any, external pressure upon the hospital authorities. The working expenses for the year came to 6·22 per cent. on the total collected. Eight churches ceased to contribute, but nineteen had joined the movement last year.

Certifying Factory Surgeons.

A meeting of the members of the Irish Certifying Factory Surgeons' Association was held last week at the Royal College of Surgeons. The physical and sanitary condition of the workers in various factories and workshops was discussed, especially in reference to the prevention of zymotic disease among the thousands of factory hands, and its extension from them to all classes of the community. The employment of children and young persons on work unsuited to them individually or collectively was also under consideration. The following officers were appointed for the ensuing year:—President: Charles F. Moore (Dublin). Treasurer: H. S. Purdon (Belfast). Secretary: R. Gray (Armagh). The Association have decided to hold their next meeting in Belfast.

National Lying-in Hospital, Dublin.

During the past year 218 patients were delivered in the hospital, without a single death. Thirty-eight of these cases required operative interference. The deaths of children numbered six, two being twins, two premature births, and two that were weak from birth. The licensing bodies having now consented to receive certificates of attendance at this institution, a large increase in the maternity work is confidently expected during the present year.

Zymotic Diseases in Dublin.

During the five weeks ended Feb. 2nd the deaths from the seven principal zymotic diseases were, in the Dublin Registration District, in the ratio of 1·64 per 1000 persons. As compared with the previous month, there were fewer deaths caused by scarlet fever, typhus, and enteric fever. In the city proper the death-rate from the principal zymotic diseases was 2·08, which is the lowest recorded since the correct registration of deaths commenced in Dublin.

Death of a Centenarian.

Mrs. Margaret Kavanagh, of Shramore, county Wicklow, died recently at the extreme age of 107 years. She was born, according to reliable authority, in 1782, and was in her seventeenth year at the time of the Irish rebellion. Her grandfather lived, it is said, to the age of 113 years.

Dublin, Feb. 26th.

BELFAST.

The Throne Hospital for Consumptives.

From the report read at the annual meeting of the friends of this institution, held on Feb. 19th, I learn that during the year 33 patients have been under treatment; of these, 7 died, 9 made a more or less decided rally and were discharged much improved in health, 8 left the hospital either without material improvement or worse, and 9 remained under treatment at the end of the year. The pressure upon the accommodation of the hospital during the year has been, as usual, far in excess of its capacity. A larger number of beds is urgently required. Dr. Lindsay, who has been in charge of the hospital since its commencement, having resigned his position as physician, a very cordial vote of thanks was unanimously given him for the very great care and attention he has given to the consumptive department of the hospital. Dr. Strafford Smith was appointed in his place.

The Ulster Hospital for Women and Children.

The report read at the annual meeting of this Hospital, held on Feb. 20th, stated that the work carried on in the wards and dispensary, as well as in the homes of the people, has been vigorously sustained, and there has been an increase in the intern cases. There have been, during the year, three successful ovariotomies. Great regret was expressed in the report at the loss the hospital had sustained by the resignation of the senior physician, Dr. Esler, who has gone to practise in London. He has been intimately associated with the hospital for a period of thirteen years. A special vote of thanks was passed to him. Financially, the hospital is in a good condition, there being a balance in its favour of £39. Some of the speakers referred to the desirability of erecting a new building.

University of Ireland.

The appointment of Drs. Byers and Whitla as examiners at the degree and second medical examinations of the University of Ireland has given much satisfaction in the Belfast School. At a recent meeting of the Belfast Medical Students' Association resolutions were passed expressive of this satisfaction, and of the confidence of the Association in the examiners and in their absolute impartiality.

The Royal Hospital.

At the last quarterly meeting, held on Feb. 25th, the staff reported that during the previous quarter 560 in-patients had been treated, while there had been 4100 out-patients. The new secretary (Mr. John Marsh) made special reference to the unsatisfactory condition of the finances. He said that on the previous Saturday the treasurer had reported they were £747 in debt, and in three days there would be another month's accounts due, which would make their indebtedness somewhere about £1300. In addition, they would soon have an inevitable expenditure of several hundreds of pounds on their sewerage system. While the city of Belfast was increasing in population, and with it the work of the hospital, their income had not proportionately increased. Compared with three years ago, they obtained £100 less from general subscriptions, and over £200 less from the working classes. They had to provide nearly £7000 a year for the maintenance of the hospital. There was no extravagance, as their expenditure per patient was very much less than in other institutions of a similar kind in the United Kingdom. During last year over 15,000 persons were treated at the hospital—that is, one out of every fourteen inhabitants of the town had actually received the benefits of the institution. Many people think that a special city rate will have to be made if the hospital is to continue to exist.

Cases of Hydrophobia.

Two weeks ago a child, nearly three years of age, died in the Royal Hospital with all the symptoms of hydrophobia. She had been bitten by a rabid cat. Another child, who had also been attacked by the same animal, is now seriously ill with similar symptoms, and the father (a small farmer in the neighbourhood of Belfast), who was also injured by the cat, left on Friday night for Paris, being accompanied by Mr. A. Mitchell, a senior medical student, to undergo M. Pasteur's treatment.

We understand that Dr. A. S. Merrick, superintendent of the District Lunatic Asylum, Belfast, is a candidate for the vacant Inspectorship in Lunacy.

Belfast, Feb. 26th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Anæsthetic Effects of Carbonic Acid Spray.

PROFESSOR BROWN-SÉQUARD has on various occasions drawn attention to the anæsthetic properties of carbonic acid employed in inhalations or in the form of spray on the larynx. He stated at a recent meeting of the Société de Biologie that he lately had recourse to this procedure in a case of lumbago, and obtained complete success. The analgesia produced by the carbonic acid is sufficiently durable; he had seen it persist during thirty-six hours.

Toxic Properties of Expired Air.

The danger of remaining in confined air has long been known. Last year it will be remembered that certain experiments, conducted by MM. Brown-Séquard and d'Arsonval, demonstrated that expired air contains a substance endowed with properties eminently toxic. A few cubic centimetres injected under the skin or into the veins of an animal suffice to cause death in a few hours. The two experimenters have just confirmed the results previously obtained. By a special arrangement of a series of apparatus they have been enabled to ascertain, by experiments on animals which were confined in the apparatus, that it is the pulmonary toxic matter which kills in these conditions, and that death is not due to the presence of carbonic acid.

Experiments on Calorification.

Professor Bouchard has published a note on the action of intravenous injections of urine on calorification, and after a certain number of experiments he arrived at the following conclusions: If in an animal an intravenous injection of water is made at a temperature lower than that of the body, an augmentation of the calorification is observed, at least if the volume of water injected does not exceed 40 grammes per kilogramme of the animal. Should it exceed this proportion a contrary effect is observed, and death soon follows. Intravenous injections of normal urine produce, in the same conditions as the preceding—that is to say, if the maximum dose is not reached,—a diminution of the calorification. This action of urine appears to be due to soluble matters, which are neither urea nor mineral substances. These hypothermising principles, not yet well defined, are retained by charcoal after the manner of the alkaloids. They are altered or disappear by prolonged ebullition in the air.

Pyretogenine.

At a recent meeting of the Academy of Medicine, Professor Hayem made, in the name of M. Roussy, one of his pupils, a communication, the object of which is to make known a new substance having the most remarkable pyretogenic properties. These researches refer to more than 400 experiments performed in the laboratory of M. Hayem. This substance is produced from micro-organisms; it is extracted by a special procedure of which M. Roussy still keeps the secret. Three milligrammes of this substance dissolved in three cubic centimetres of distilled water, and injected in the vein of the ear of a dog, produce an access of fever which is very characteristic. M. Roussy proposes to call this substance "pyretogenine." According to these experiments, it is possible that the fever which is found in man and in animals in the state of fatigue is due to the presence of a chemical substance analogous to pyretogenine.

Trephining in Epilepsy.

Dr. Péan related, at the meeting of the Academy of Medicine last week, in his own name and in those of MM. Ballet and Gelineau, a case of partial epilepsy produced by a cerebral tumour in a young man aged twenty-eight years, and which was cured by trephining. The fits were marked by painful spasm of the right great toe, followed by stiffness of the corresponding lower limb, tonic convulsions, succeeded by clonic convulsions of this limb, which were afterwards propagated to the arm and the face of the same side. Other symptoms appeared, which led the authors to suppose that the fits were due to a cerebral tumour situated at the level or in the neighbourhood of the motor centre of the right inferior limb; it was therefore decided to resort to trephining. After the ablation of the neoplasm, which consisted of a fibro-lipoma developed at the expense of the pia mater, a drainage tube was left in the cavity produced by the tumour. The four fragments of the dura mater were sutured with catgut, and those of the scalp with

the "hair of Florence," and then antiseptic dressing was applied. Eight days after the operation the threads and drainage tubes were removed; on the tenth day cicatrisation was complete. A few convulsive twitches, probably due to the irritation of the cerebral substance, manifested themselves in the first few days following the operation. This was two months and a half ago, and two months subsequently to that date the patient did not present any epileptiform manifestations. The cure may therefore be considered complete.

Criminal Abortionists punished.

A rather curious case of a series of criminal abortions was recently tried at the Court of Assizes of the Eure, and caused a great sensation. This trial has brought to light one of the probable causes of the increasing depopulation of France in general, and of Normandy in particular. The accused, a man named Martin, was denounced by some of his own accomplices. He was a clockmaker by trade, and aged fifty-one years. Seeing that it was impossible to deny the charge against him, he decided upon making a confession, and at the same time denounced his accomplices, as well as those who had submitted to the operation, which he performed with a reed. The list was a long one, but there were nineteen persons directly implicated. Martin, the principal, showed during the trial an imperturbable assurance, as if he failed to realise the gravity of the charges against him. "I wished simply," he said, "to render service to those who addressed themselves to me. As to the fees which I received, it was the just remuneration for my trouble." He added, with incredible cynicism: "Moreover, medical men, pharmaciens, and herbalists have rendered justice to my ability in sending me patients." Martin was condemned to eight years' and his accomplices to shorter periods of imprisonment.

Anti-rabic Inoculation.

The *Sémaine Médicale* registers two deaths from rabies after the anti-rabic inoculations: 1. L. A., of Cambes, aged fourteen; bitten on Dec. 25th, 1888, by a mad dog, and treated at the Pasteur Institute from Dec. 28th; died from rabies on Jan. 14th, 1889. 2. R. M., of Belbeuf, aged three years; bitten on Dec. 13th, 1888, by a mad dog, and treated at the Pasteur Institute from Dec. 15th; died from rabies on Jan. 9th, 1889.

At the meeting of the Academy of Sciences of yesterday, M. Berthelot was elected Perpetual Secretary, in the room of M. Pasteur, resigned. The Academy has conferred on M. Pasteur the title of Honorary Perpetual Secretary.

Paris, Feb. 26th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

School Hygiene.

THE resolutions come to on the school hygiene question by the scientific deputation for medical affairs at their sittings last October have now been published. Representatives of the twelve Prussian Chambers of Physicians took part in the deliberations at those sittings for the first time. Professor Virchow and Dr. Graf of Elberfeld, Private Councillor on Sanitary Affairs, reported on the matter. Regarding the resolutions official secrecy has hitherto been maintained. The question was as to how far the pupils could be guarded by the participation of medical experts in the superintendence of schools against injury to health consequent on their attendance there. The question of over-burdening was excluded from the discussion. The resolutions are as follows. 1. In order to secure sufficient attention to the claims of school hygiene, it is necessary that medical experts take a greater part than hitherto in the superintendence of schools. 2. Such participation is necessary, firstly, with reference to the concrete conditions of each school, by examining the site and its surroundings, the drinking-water, the internal arrangements, the condition of the edifice when the building operations are ended, the ventilation, heating, and lighting of the rooms, the benches, the means of instruction, the closets, the playgrounds and gymnastic grounds, and the general cleanliness of the place and its inmates; secondly, with reference to the health of each pupil, which ought to be examined as soon as possible after his or her admission, and from time to time afterwards; and thirdly, with reference to the teachers, by taking part in their conferences and in the instruction in the normal schools. 3. It is desirable that municipal, administrative, and other authorities elect physicians as members of superintending school boards. 4. As regards the establishment of medical superintendence of schools, the following proposals are made:—(*a*) The buildings, arrangements, and surroundings of each school are to be periodically examined by a physician, who will answer a list of printed questions and send it to the superintending board. Every school shall be inspected in this manner at least once every three to five years. (*b*) The health of each pupil is to be examined as far as possible by a physician soon after the beginning of each half. In the case of pupils who enter a school for the first time, the physician has to examine each separately, and to ascertain any defects that may exist. In the case of all the other pupils the examination of each separately is not necessary. All that is needed is that the physician ascertain by conversation with the teachers, perusal of the books showing attendance &c., and then, as far as necessary, by examination of individual pupils, whether measures are necessary in order to prevent greater evils. As regards infectious diseases, the existing police regulations remain in force. (*c*) To secure the success of the medical inspection and the carrying out of the physician's suggestions, he must be informed by the superintending board and by the managers, or by the head master, of the steps taken, and is at liberty to complain to the higher authority. If he find a child suffering from an infectious disease, he has to request the class-teacher to forbid that child to attend the school, which request the teacher must at once comply with; but this is the only case in which he has a right to give direct instructions to the teacher. (*d*) The competent administrative organs of the State determine what physicians are to be employed in the manner above indicated, under what conditions, and in what schools. Special school-physicians are necessary only for boarding-schools and for schools in large cities. For special investigations in particular cases, experts should be consulted.

Berlin, Feb. 18th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE Members of the College of Surgeons who, in response to the notice issued by the secretaries of the Association of Members of the Royal College of Surgeons, gathered in Lincoln's-inn-fields at three o'clock on Thursday afternoon, found, as had been announced by the Council, that the College was closed against them, and that rigorous measures had been adopted to prevent any meeting being held in the immediate vicinity of the College.

Mr. Ellis, one of the honorary secretaries, having rung the bell for the purpose of formally demanding admission, the following notice was handed to him through the railings of the gate:—

"A meeting of the Fellows and Members of the College having been convened for Thursday, 28th inst., at the College, in violation of the bye-laws, notice is hereby given that such illegal meeting will not be allowed, and that the College will be closed on that day by order of the Council. "EDWARD TRIMMER, Secretary."

The meeting thereupon proceeded to the Venetian Room of the Holborn Restaurant according to arrangement, and Dr. Collum having been voted into the chair, Mr. Ellis immediately commenced to explain the objects for which the meeting had been convened. He prefaced his remarks by referring to the extraordinary precautions taken by the College authorities to prevent their entry into the building, as if they expected an incursion of East-end roughs. (Cheers and laughter.) He and those acting with him had made every effort to maintain a friendly and courteous bearing towards the Council, but unfortunately their efforts had not been reciprocated. They had therefore taken an extreme step to-day with a view of compelling the College to take action one way or another, either by enforcing the bye-law against the twenty gentlemen and upwards who had signed the requisition convening the meeting, which enforcement would be scandalous and ridiculous, or else to confess to defeat by doing nothing. Mr. Ellis next read the correspondence (already published in THE LANCET) that had taken place between

Mr. Steele and himself as secretaries of the Association, on the one hand, and the President of the College on the other, and he added that not a single step had been taken during the past three months in this matter without legal advice. Mr. Ellis then proceeded to discuss the Draft Bill "to amend the constitution of the College, and to declare and extend the rights of the Members thereof," the consideration of which Bill was the principal object of their meeting that day.

The first resolution was then put and carried unanimously, expressing the regret of the meeting that the President and Council had refused the use of the College for the purposes of the meeting.

The second resolution was then proposed, approving the Draft Bill, and that it be referred to a committee to amend it, and take the necessary steps to push it through Parliament.

Mr. Joseph Smith, in supporting the resolution, said he for one was quite willing to be a martyr if the Council chose to make him one. He denied that the Members of the College were struggling to obtain *new* rights. They were simply trying to have restored to them their old rights and privileges, which had never been abrogated. The late Mr. Wakley, the founder of THE LANCET, had tried to fight this very question of the right of admission to the College, and he believed the question finished up at Bow-street.

The resolution approving the Draft Bill was then put, and declared unanimously carried, as was also a resolution appointing the Parliamentary Committee.

A resolution was next proposed, thanking the Executive Committee of the Association for their efforts, and promising the support of the Fellows and Members.

Sir Wm. Moore, Surgeon-General, Indian Army (retired), in supporting the resolution, said the only benefit he ever derived from being a Member of the College of Surgeons, as at present constituted, was a piece of parchment which he received thirty years ago, and had since lost. (Laughter.)

This resolution was carried unanimously, as was also a resolution heartily approving and endorsing the action taken by the two secretaries of the Association, Messrs. Steele and Ellis.

Mr. W. H. Denham, in supporting the latter resolution, said the late Tom Wakley, to his enduring honour, was one of the first to force open the doors of the College. When he (the speaker) stood to-day shivering outside the police-guarded doors of his College, he wished that they had had Wakley back again with them, if only for one hour.

A resolution was then carried that the meeting stand adjourned until such time and place as the Parliamentary Committee may fix; and after an urgent appeal for pecuniary assistance from Mr. Ellis to enable them to carry on the great work which they had in hand, the proceedings, which were marked throughout by considerable enthusiasm, closed with a vote of thanks to Dr. Collum for presiding.

APPLICATION FOR INJUNCTION.

STEELE *v.* SAVORY.

IN this case an application was made on Thursday last to Mr. Justice Stirling for an injunction to restrain the Council of the Royal College of Surgeons of England from interfering with the holding of a meeting by the Members within the College.

Mr. B. F. C. Costelloe appeared for the applicants and Mr. Graham Hastings, Q.C., and Mr. J. R. Paget for the defendants.

Mr. Costelloe, in opening his motion, explained that the Members of the College, for whom he appeared, were promoting a Bill in Parliament, and that it was necessary for them in that proceeding to take some kind of corporate action, and for this purpose to meet in the College premises; although they would be willing, as he further explained, after meeting to adjourn at once to some convenient place. He complained that the Council had taken a very high-handed course, and were trying to steal a march upon the Members in the matter of the Parliamentary procedure, by prohibiting to them the use of the College building.

Mr. Graham Hastings, Q.C., thereupon referred to Section 17 of the bye-laws of the College, which provides that no meeting or assemblage of Fellows or Members of the College shall be held in the Hall or Council House of the College or in any of its appurtenances, unless convened by or under the authority of the President or Council.

The Judge thereupon intimated that he could not try the question of right upon the present proceedings, and it was agreed that the motion should stand over till the motion day in next week (March 8th).

Obituary.

ALEX. JAMES SINCLAIR, M.D., F.R.C.P. ED.

WE regret to have to announce the death, on the 23rd ult., of Dr. Alexander Sinclair, at his residence, 21, Northumberland-street, Edinburgh, after a few days' illness of meningitis, at the comparatively early age of forty-one. He leaves a widow and three young children.

This promising young physician is deeply lamented and deservedly respected, not only by his relatives, but by the large circle of friends and patients of all classes to whom he had endeared himself by his unvarying kindness and undoubted skill. The rich in him lose a conscientious physician, and the poor a true friend. He never spared his own labour when he could alleviate the sufferings of those afflicted, both in his public and private practice. Born in 1847, he was educated at the Edinburgh Academy, passed through the Arts classes of the University of Edinburgh, and then studied medicine at the same University, taking his degree of M.B., C.M., and L.M. in 1868; but, not being twenty-one, he could not be capped in August with the other students, so had his degrees conferred on him in the October following. He took his M.D. in 1872, and was commended for his thesis "On Intestinal Obstruction." He became M.R.C.P.Ed. in 1873; F.R.C.P. in 1874. He was Demonstrator of Anatomy, Surgeons' Hall, Edinburgh, at the age of twenty-one. For many years he had been examiner at the Royal College of Physicians, Edinburgh. He was a member of the British Medical Association, vice-president of the Medico-Chirurgical Society, member of the Royal Medical and Obstetrical Societies of Edinburgh, physician to the Royal Dispensary, medical officer to the city parish, and latterly visiting medical officer to the city poorhouse at Craig Lockart.

Among his contributions to medical literature we may note "Antiseptic Treatment of Empyema," in the *Edinburgh Medical Journal*, 1875, and "Case of Alexander-Adams Operation for Prolapsus Uteri," ibid., 1885. Those who knew Alexander Sinclair in public and private life are convinced that medical research has lost in him a painstaking, clever, and careful observer, who, had he lived, would have added much to our medical knowledge, and would certainly have become one of the leading members of our profession.

HUNTER JACKSON BARRON, M.D.

THE announcement of the death of Dr. Hunter Barron on the 9th ult. was received with regret by a large circle of friends. Although it was known that he had been an invalid for many months, it was hoped that a change to the South would result in improvement. On the day preceding his death he was at work, but caught cold on his rounds, and died on the following morning.

Dr. Barron commenced his study of the profession at St. Thomas's Hospital, and then went to Edinburgh University, where he became M.B. and C.M. in 1883, becoming L.R.C.P.Lond. in the same year. Two years later he took the M.D.Edin. and the M.R.C.S. He had paid especial attention to the study of zoology, taking Sir Wyville Thomson's silver medal for Practical Zoology at Edinburgh in 1879, and being an occasional contributor to the British Museum of specimens of British mollusca, of which he had himself a large and beautiful collection. He was a Fellow of the Linnæan Society. He had been a good swimmer from a very early age, and was well known in the swimming world as a first-rate amateur in the art. He took very great interest in this pursuit, and did all that he possibly could to encourage it. He had been captain of the Otter Swimming Club; and also hon. secretary of the Swimming Association of Great Britain from 1880 to 1883, and president in 1884 and 1885, doing much in both those capacities for the encouragement of the art; and on his resigning the position of president in 1886 he was presented by the delegates of the Association with a handsome testimonial,

in appreciation of his efforts to promote and popularise swimming generally. Portraits and memoirs of him as an amateur swimmer appeared in the *Bicycling and Athletic Journal* of November, 1880, and the *Sporting Mirror* of May, 1882, and he had from time to time contributed articles on his favourite pastime to the *Field* and other papers.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At the congregation on Thursday, Feb. 28th, the following were admitted to the degrees indicated :—

Bachelor of Medicine.—Alfred Edward Nuttall, B.A., Trinity College and St. Bartholomew's; Thomas Hancock Arnold Chaplin, B.A., St. John's College and St. Bartholomew's; John George Adams, M.A., Christ's College and Manchester Royal Infirmary, Demonstrator of Pathology.

Bachelor of Surgery.—A. E. Nuttall, B.A.; H. A. Chaplin, B.A.

INDIAN MEDICAL SERVICE.—The following is a list of candidates for this Service who were successful at the competitive examination held at Burlington House on Feb. 11th and following days. Sixty-eight candidates competed for ten appointments. All were reported qualified.

	Marks.		Marks.
Ozzard, F. R.	3550	Moore, C. M.	3270
Anderson, A. R. S.	3440	Calvert, J. T.	3200
Jennings, Edgar	3440	Hendley, A. G.	3200
Stiles, T. M.	3380	Ricketts, W. S. P.	3190
Jenney, G. W.	3355	Hudson, C. T.	3170

NAVAL MEDICAL SERVICE.—The following gentlemen who competed at the examination recently held at Burlington House for appointment as Surgeon in the Royal Navy have been granted Commissions :—

	Marks.		Marks.
Andrews, O. W., M.B.	3170	Hackett, W., M.D.	2760
Kelsall, C. J. S.	3160	Matthew, C. G., M.R.	2760
Cook, E. T.	3125	Grant, J., M.B.	2745
Powell, E. E.	3045	Holroyd, G. A.	2730
Bidwell, L.	3030	Austen, T.	2720
McSherry, E. H., M.D.	2960	Chambers, J., B.A., M.B.	2720
Bearblock, W. J.	2800		

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates, having passed the qualifying examination in Medicine, Surgery, and Midwifery, have received certificates entitling them to practise in the same, and were admitted Licentiates of the Society in February, 1889:—

Bolton, F. Robinson, Guy's Hospital.
Bradley, Gertrude Mary, Jamsetjee Hospital, Bombay.
Ellis, H. Havelock, St. Thomas's Hospital.
Fielder, S., St. Thomas's Hospital and Glasgow University.
Gilmour, James Callaghan, Guy's Hospital.
Herbert, Chas. Henry, St. Bartholomew's Hospital.
Johnson, Benjamin Pitt, Royal Infirmary, Liverpool.
Knight, Edward, Middlesex Hospital.
Lange, André Phillippe, King's College Hospital.
Morgan, Morgan John, Guy's Hospital.
Rudyard, Henry Ashton, University College Hospital.

SUPERANNUATION. — Mr. N. Hardcastle, late medical officer of the workhouse of the Newcastle-upon-Tyne Union, has been granted a superannuation allowance of £80 per annum.

WIGAN MEDICAL SOCIETY.—The following have been elected office-bearers for 1889 :—President: Mr. R. F. Woodcock, L.R.C.P. Lond. and M.R.C.S. Eng. Committee: Messrs. E. H. Monks, junior, C. M. Brady, Nathan Hannah, W. C. Barnish, and J. B. Hunt. Treasurer: Mr. E. H. Monks, junior, L.R.C.P. Ed. Hon. Sec.: Mr. Wm. Berry, F.R.C.S.I.

SEAMEN'S HOSPITAL SOCIETY, LONDON. — The report of this institution, which was presented to the sixty-eighth annual meeting of the governors and subscribers held on the 22nd ult., shows that 2463 patients (a larger number than in any previous year) received treatment in the hospital at Greenwich. These represented thirty-six nations. Besides the in-patients, 5914 out-patients were treated at the hospital and its two dispensaries. The total receipts were £12,177, and the expenditure £11,990. To provide additional hospital accommodation for mariners in the Port of London, it has been decided to erect a branch hospital for twelve beds and an out-patients' department, at an outlay of £3000, and for purposes of maintenance it is estimated a further sum of £1000 per annum will be necessary.

A LIVERPOOL CENTENARIAN.—Terence M'Ardle, the Liverpool centenarian, died on the 26th ult. He would have been 107 years of age on the 15th instant.

MESSRS. KILNER BROTHERS have, we are asked to state, secured the first award at the Melbourne Exhibition for their glass ware.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The next quarterly meeting of the Association will be held at the Retreat, York, on Thursday, March 14th, at 4 P.M., when the following papers will be read: Insanity of Children, by Dr. Clifford Allbutt; Ten Years' Experience in the Use of the Turkish Bath in the Treatment of Mental Disorders, by Dr. R. Baker; Case of Attempted Suicide, by Dr. Urquhart, with microscopic sections by Dr. A. Keith; and Notes on the Use of Sulphonal, by Dr. Watson. Members and friends will dine at the Station Hotel at 7.15.

MANCHESTER CITY POLICE AND THE ST. JOHN AMBULANCE ASSOCIATION.—At the Town Hall, on Monday, certificates of proficiency were presented to ninety-two members of the City Police Force, in connexion with the St. John Ambulance Association, who have attended classes conducted by Mr. Heslop, one of the divisional surgeons. The Mayor (Mr. Alderman Batty) presided. Mr. Alderman Bennett announced that the Watch Committee (of which he was chairman) had authorised the wearing of a special badge by the men who had obtained certificates.

WEST NORFOLK AND LYNN HOSPITAL.—Mr. J. W. Davy, of Congham Hall, presided at the annual meeting of the governors, held recently at the Town Hall. At the beginning of 1888 there were 35 in-patients and 236 out-patients. During the past year 402 in-patients were admitted, the out-patients numbered 1119, and nine patients were passed to the Hunstanton Convalescent Home. A sum of £339 9*s.* 7*d.* was due to the treasurer at the end of 1887, which had been increased during the past year to £478 2*s.* 10*d.*

FOOTBALL CASUALTIES.—A young mechanic named James Bywater Cluderoy, aged twenty-one years, residing at Holbeck Moorside, died on Sunday last from injuries sustained while playing a week ago with the Holbeck Trinity Football Club, in a match against the Leeds Gaelic Club at Knostrop.——Whilst a match was being played on Saturday last at Grenoside, between the Grenoside and Burncross (near Chapeltown) teams, a Grenoside player, named Brookes, and Jacob Denton, of the Burncross team, collided, and the ankle of the former was broken.——A well-known international football player named Frederick Brown, having received severe injury during a match on Saturday, has retired absolutely from the football field.

PUBLIC ANALYST'S REPORT, CITY OF LONDON.—Dr. Sedgwick Saunders' annual report for the year 1888 to the Commissioners of Sewers sets forth that during the year 178 analyses had been made, which comprised arrow-root, bread, butter, margarine, coffee, disinfectants, drugs, milk, pepper, tea, water, and whisky. The New River water supplied to the City had been periodically examined, with the usual satisfactory result. Reference is made to the need of extending the provisions of the existing Acts, to afford facilities for examining suspected articles other than food or drugs, these only being dealt with in the Acts now in force. The analyst illustrates a case brought under his notice of the deleterious effects produced by the wall paper of two bedrooms, which contained a large quantity of arsenic.

AMBULANCE LECTURES.—A course of ambulance and first aid lectures, given in connexion with St. Andrew's Home and Club, Great Peter-street, Westminster, has been concluded by an examination held on Feb. 18th by Deputy Inspector-General Coates, M.D., examiner for St. John Ambulance Association. From the examiner's report we learn that all the candidates for examination were found qualified and will receive certificates. The class was comprised of boys belonging to the Home aged from thirteen to eighteen, members of the Club, and some gentlemen who are actively interested in the Home. The lectures were delivered weekly by Dr. A. D. Leith Napier, Surgeon-Major, A.M.R., whose work has been well rewarded by the exceptionally high standard of proficiency attained by his class. This, we are informed, is the first course of ambulance instruction given in London in connexion with such an institution, which has shown such excellent results on examination.

MEDICAL NOTES IN PARLIAMENT.

BOTH Houses reassembled on Thursday, Feb. 21st, the Queen's Speech being read by the Lord Chancellor.

The Sweating System.

In the House of Lords, on the 25th, a motion by the Earl of Dunraven was agreed to for the appointment of a select committee to continue the inquiry into the sweating system in the United Kingdom.

Sale of Revolvers.

On the 26th, the Earl of Miltown gave notice of his intention to ask what measures Government proposed to adopt to restrain the custom of carrying and the indiscriminate sale of revolvers.

Lunacy Acts Amendment Bill.

On Feb. 28th, on the motion of the Lord Chancellor, this Bill was read a second time without discussion.

Dublin Barracks.

On the 25th, Lord Belmore asked what steps were to be taken to improve the sanitary condition of the Dublin Barracks generally and the Royal Barracks in particular. Out of sixty-five cases of enteric fever no fewer than fifty-nine arose in the Royal Barracks.—Lord Harris replied that the recommendations contained in the report already laid on the table of the House were being carried out. He did not think that Captain Codrington, one of the last officers who died, could have caught enteric fever in any barrack in Dublin. He hoped in a few days to lay before them a further report than that presented by Dr. Cameron and Dr. Grimshaw. The whole question of the Dublin Barracks would be dealt with in a large scheme. There had been no case of enteric fever at the barracks during the last fortnight, and he believed there had been none during the last month.

In the House of Commons, Mr. E. Stanhope, Secretary of State for War, in reply to Dr. Farquharson, said, "The first report of Mr. Rogers Field on the drainage of the Royal Barracks will be laid on the table immediately. In answer to the question whether the result of my recent inspection of all the Dublin barracks will be communicated to the House, I shall be glad to state, when opportunity occurs, the general objects we are aiming at."

On the 26th, Mr. Lambert asked whether permission had been refused to the Royal Lancaster Regiment to move from the Royal Barracks to Beggar's-bush Barracks, Dublin, and whether it was intended to keep the Royal Lancaster Regiment for the whole of its term in Dublin in barracks, which were insanitary, uncomfortable, and unfit for habitation.—Mr. Stanhope replied: As a result of the promise that no fresh troops should be moved into the Royal Barracks, the request of the Lancaster Regiment was refused. The General Commanding reports that during the ten months the Lancaster Regiment has been in the Royal Barracks it has been particularly healthy. That steps are being taken to put the barracks into a thoroughly sanitary condition is well known.

Sanitary Registration of Buildings.

On the 22nd, a Bill for the Sanitary Registration of Buildings was introduced by Dr. Farquharson and read a first time.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

The Skin Diseases of Infancy and Early Life. By C. M. Campbell, M.D., C.M. Edin. 1889. pp. 202.

Psycho-Therapeutics; or, Treatment by Sleep and Suggestion. By C. Lloyd Tuckey, M.D. 1889. pp. 80.

BLAKISTON, P., SON & CO., Walnut-street, Philadelphia.

The Pathology, Clinical History, and Diagnosis of Affections of the Mediastinum other than those of the Heart and Aorta. With Tables of 520 Cases. By Hobart A. Hare, B.Sc., M.D. 1889. pp. 150.

CUPPLES & HURD, Boston, U.S.

The Operative Treatment of the Hypertrophied Prostate. By F. S. Watson, M.D. With Plates. 1888. pp. 167.

DORNAN, W. J., Philadelphia.

Transactions of the American Gynæcological Society. Vol. XIII. for the year 1888. pp. 502.

LEWIS, H. K., 136, Gower-street, London.

The Middlesex Hospital. Reports of the Medical, Surgical, and Pathological Registrars for the year 1887. Price 2s. 6d. pp. 328.

Treatise on the Diseases of Women, for the use of Students and Practitioners. By Alex. J. C. Skene, M.D. With 251 Engravings and 9 Chromo-lithographs. 1889. pp. 962.

Congestive Neurasthenia; or, Insomnia and Nerve Depression. By E. G. Whittle, M.D., F.R.C.S. 1889. pp. 95.

Diabetes, its Cause and Permanent Cure, from the standpoint of experience and scientific investigation. By E. Schnée, M.D. Translated by R. L. Tafel, A.M., Ph.D. English Edition, revised and enlarged. 1889. pp. 215.

Questions on the English Language set at the Matriculation Examinations of the University of London, 1858—1889. By F. W. Levander, F.R.A.S. Second Edition, with Appendices. 1889. pp. 119.

Practical Organic Chemistry: The Detection and Properties of some of the more important Organic Compounds. By Samuel Rideal, D.Sc. Lond., F.I.C., F.C.S. 1889. pp. 160.

LIVINGSTONE, E. & S., Edinburgh.

The Student's Handbook of Forensic Medicine and Public Health. By H. Aubrey Husband, M.B., C.M., F.R.C.S. Edin. Fifth and revised Edition. 1889. pp. 623.

MACMILLAN & CO., London.

Natural Inheritance. By F. Galton, F.R.S. 1889. pp. 250.

NEW SYDENHAM SOCIETY, London.

The New Sydenham Society's Lexicon of Medicine and the Allied Sciences. (Based on Mayne's Lexicon.) By H. Power, M.B., and L. M. Sedgwick, M.D. Fifteenth Part. Kid—Lin. Completion of Vol. III. 1888.

A Text-book of Midwifery. By the late Otto-Spiegelberg. Translated from the Second German Edition. By J. R. Hurry, M.A., M.D. Cantab. In two volumes. Vol. II. 1888. pp. 696.

THOM, ALEX., & CO., 87, Abbey-street, Dublin.

Royal University of Ireland. Examination Papers, 1888. A Supplement to the University Calendar for the year 1889. pp. 264.

TRÜBNER & CO., Ludgate-hill, London.

The Therapeutics of Kronenquelle Water. By Prosser James, M.D., M.R.C.P. 1889. pp. 32.

B. Bradshaw's Dictionary of Mineral Waters, Climatic Health Resorts, Sea Baths, and Hydropathic Establishments. With a Map. 1889. pp. 410.

UNWIN, T. FISHER, 26, Paternoster-square, London.

The Coming of the Friars, and other Historic Essays. By the Rev. Augustus Jessopp, D.D. 1889. pp. 344.

WASHINGTON GOVERNMENT PRINTING OFFICE.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States, for the fiscal year 1888.

WATERLOW & SONS, London-wall, London.

South Africa and how to reach it by the Castle Line. With a Map. By E. P. Mathers, F.R.G.S. 1889. pp. 203.

WINTER, DUNCAN, & CO., 10, Castle-street, Dundee.

Report on the Cost and Efficiency of the Heating and Ventilation of Schools. By Thos. Carnelley, D. Sc. Lond., F.C.S. 1889. pp. 53.

WOOD, WM., & CO., Lafayette-place, New York.

A Reference Handbook of the Medical Sciences, embracing the entire range of Scientific and Practical Medicine and Allied Science. By various Authors. Illustrated by Chromo-lithographs and Wood Engravings. Edited by Albert H. Buck, M.D. Vol. VII. Ter—Wor. 1889. pp. 795.

WRIGHT & CO., Stone Bridge, Bristol.

Elementary Bandaging and Surgical Dressing, with directions concerning the immediate treatment of cases of emergency. For the use of dressers and nurses. By Walter Pye, F.R.C.S. Revised and enlarged. Third Edition. 1889. pp. 207.

The Medical Annual and Practitioner's Index: A Work of Reference for Medical Practitioners. 1889. Seventh year. pp. 667.

YOUNG J. PENTLAND, Edinburgh and London.

Reports from the Laboratory of the Royal College of Physicians, Edinburgh. Edited by J. Batty Tuke, M.D., and G. Sims Woodhead, M.D. Vol. I. 1889. pp. 212.

A Compend of the Practice of Medicine. By D. E. Hughes, M.D. Third Edition, revised and enlarged. 1888. pp. 168.

A Compend of Surgery, for Students and Physicians. By Orville Horwitz, B.S., M.D. Third Edition, revised and enlarged. With 91 Illustrations. 1888. pp. 206.

A Compend of Obstetrics, especially adapted to the use of Medical Students and Physicians. By H. G. Landis, A.M., M.D. Fourth Edition. Illustrated. 1889. pp. 118.

The Urine and the Common Poisons. Memoranda, Chemical and Microscopical, for Laboratory use. By J. W. Holland, M.D. Illustrated. Second Edition, revised and enlarged. 1889. pp. 65.

A Compend of the Diseases of the Eye; including Refraction and Surgical Operations. By L. Webster Fox, M.D., and George M. Gould, M.D. Second Edition, revised and enlarged; with 71 Illustrations. 1889. pp. 164.

A Compend of Human Physiology. Especially adapted for the use of Medical Students. By A. P. Brubaker, A.M., M.D. Fourth Edition, revised and enlarged. With Illustrations and a Table of Physiological Constants. 1888. pp. 174.

A Pamphlet on Vaccination, by Wm. Woodward, M.D., L.R.C.P. Lond., Public Vaccinator to the Worcester District (Simpkin & Marshall, London), price 3*d*.—Report of the Metropolitan Board of Works, 1888 (Judd & Co.)—Creasote as a Remedy in Phthisis Pulmonalis, by Beverley Robinson, M.D. (W. J. Dornan, Philadelphia, 1888.)—Footprints of a Profession: Ethics in Materials and Methods; by Horatio C. Meriam, D.M.D. Second edition, revised and enlarged (The Dental Journal and Library Association, St. Louis, Mo., 1888.)—Report on the Cholera Epidemic in Malta in 1887, by Professor S. L. Pisani, M.D., &c., Chief Government Medical Officer (Government Printing Office, Malta).—The Transport of the Sick and Injured; by Surgeon G. H. Darwin, V.M.S. (John Heywood, Manchester and London, 1888), price 6*d*.—On the Sanitary Requirements of a Dairy Farm; by the Medical Officer of Health of Glasgow (Alex. Macdougall, Glasgow, 1889.)—Drink and Poverty, by Councillor Alex. M'Dougall, Vice-chairman of the Manchester Board of Guardians (United Kingdom Alliance, Manchester).—Reports on African Horse-sickness, by J. A. Nunn, F.R.C.V.S., Army Veterinary Department.—Report of the Mansion House Council on the Dwellings of the Poor, for the year ending Dec. 31st, 1888 (Offices: 31, Imperial Buildings, Ludgate-circus, London, E.C.)—Index Medicus: Authors and Subjects, Vol. XI., No. 1. January, 1889. (Trübner & Co., and Lewis, London.)—The Manx Geological Society: Inaugural Address by the President, Alfred Haviland, M.R.C.S., delivered January 7th, 1889 (Brown and Son, Douglas.)—The Advertiser's Guardian, and Advertisement Agents' Guide, 1889; by Louis Collins, 16, Great Marlborough-street, London, W.—Magazines for March: Good Words, Sunday Magazine, Leisure Hour, Sunday at Home, Girl's Own Paper, Boy's Own Paper, Scribner's Magazine.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BLUMBERG, H., M.D. Prague, L.R.C.P. Lond., has been reappointed Honorary Surgeon to the North of England Children's Sanatorium, Southport.

BRANFOOT, H. S., M.B.Lond., M.R.C.P., M.R.C.S., has been appointed Senior Physician to the Sussex County Hospital, Brighton, vice Moore.

CRESSY, A. Z. C., M.R.C.S., L.S.A., has been appointed Medical Officer for the Seventh District, Croydon Union.

HARVEY, C. T., L.K.Q.C.P. Irel., M.R.C.S., has been reappointed Honorary Surgeon to the North of England Children's Sanatorium, Southport.

HEPBURN, D. S., L.D.S.R.C.S. Eng., has been reappointed Honorary Dental Surgeon, Nottingham General Dispensary.

HUME, WALTER, M.B. & C.M. Edin., has been appointed Joint Medical Officer of the Jedburgh Parochial Board.

JACKSON, LOUIS PILKINGTON, L.R.C.P. &c., has been appointed Certifying Factory Surgeon for the Plymouth and Devonport District, vice E. C. Langford, M.R.C.S., resigned.

LANGHORNE, T. GRANT, M.R.C.S., L.R.C.P. Edin., has been appointed Government Medical Officer to the Destitute Poor and Aborigines in the District of Mayuru, South Australia.

LESLIE, W. MURRAY, M.B. & C.M. Edin., has been appointed Divisional Surgeon to the K Division of the Metropolitan Police, vice Dr. Macdonald, M.P., resigned. Also Certifying Factory Surgeon for Limehouse, Poplar, and Blackwall, south of the Great Eastern Railway, vice Dr. Macdonald, M.P.

MACDONALD, T. R., M.B. & C.M. Glasg., has been appointed Medical Officer for the Kings Kerswell District, Newton Abbot Union.

M'LAGAN, HENRY G., M.B. Dur., has been appointed House Surgeon to the Liverpool Eye and Ear Infirmary.

MOORE, WITHERS, M.D.Edin., F.R.C.P., M.R.C.S., L.S.A., has been appointed Consulting Physician to the Sussex County Hospital, Brighton.

REID, W. BRAMWELL, M.B. & C.M. Edin., has been appointed Medical Officer and Public Vaccinator for the Heston and Isleworth (Hounslow) District of the Brentford Union.

STORRAR, W. M., L.R.C.P., L.R.C.S.Edin., has been reappointed Honorary Surgeon, North of England Children's Sanatorium, Southport.

TAYLOR, H., M.R.C.S., L.S.A., has been reappointed Honorary Consulting Surgeon, Nottingham General Dispensary.

THOMPSON, JOSEPH, L.R.C.P. Lond., M.R.C.S., has been reappointed Honorary Consulting Surgeon, Nottingham General Dispensary.

TRUMAN, E. B., M.D.St.And., M.R.C.S., L.S.A., has been reappointed Honorary Consulting Surgeon, Nottingham General Dispensary.

TURNER, JOHN A., M.B., C.M., has been appointed Medical Officer of Health to the Rural Sanitary Combined Districts of Barrow-on-Soar, Billesdon, Blaby, Hinckley, Lutterworth, Market Bosworth, Oakam and Uppingham Unions, and the Urban Sanitary Districts of Melton Mowbray and Thurmaston, in the counties of Leicester and Rutland.

WHITE, G. B., M.R.C.S., L.S.A., has been reappointed Honorary Consulting Surgeon, Nottingham General Dispensary.

YATE, FREDERICK, M.R.C.S., L.S.A., has been reappointed Medical Officer for the Witley District, Surrey.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Assistant House Surgeon. Salary £50 per annum, with apartments, board, and lodging.

DENTAL HOSPITAL OF LONDON, Leicester-square.—Assistant Dental Surgeon.

DUNDEE ROYAL LUNATIC ASYLUM.—Medical Assistant. Salary £80 per annum, with board and lodging.

DURNESS, Sutherlandshire.—Medical Officer. Guaranteed salary £150, with free house and practice.—Address, Inspector of Poor.

GUY'S HOSPITAL, London.—Six Assistant Dental Surgeons. Lecturers on Dental Anatomy and Physiology, and Dental Mechanics. An Anæsthetist for each morning of the week, and a Tutor for the Dental Students.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer. Salary £200 per annum, with board and residence. Also Assistant Physician.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House Surgeon. Salary £50 per annum, with board, lodging, and washing.

KING'S COLLEGE, London.—Chair of Forensic Medicine.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with residence and maintenance in the house.

LONDON FEVER HOSPITAL, Liverpool-road, N.—Physician and Assistant Physician.

NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.—Dispenser. Commencing salary £60, with board and residence.

PARISH OF PADDINGTON.—Mr. Henry Aveling, Clerk to the Guardians, 289, Harrow-road, W. Two Medical Officers: South and West districts respectively. Salary of each Officer £75 per annum, exclusive of such extra medical fees as are allowed in certain cases.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.—Resident Medical Officer. Salary at the rate of £60 per annum, with board and lodging in the hospital.

ROMNEY MARSH UNION.—Medical Officer and Public Vaccinator. Salary £100 per annum, exclusive of Midwifery of 12*s.* 6*d.* per case, and of such extra fees as are allowed by the Consolidated Orders of the Local Government Board.

ROTHERHAM HOSPITAL.—Assistant House Surgeon. Rooms, commons, and washing provided in the hospital, in lieu of salary.

ST. SAVIOUR'S UNION, Surrey.—District Medical Officer for the First District. Salary at the rate of £130 per annum, inclusive of all extra fees, with the exception of those payable in respect of the quarterly returns of lunatics. Drugs are found and dispensed by the guardians.

SURREY DISPENSARY, Great Dover-street, Southwark.—Dispenser. Salary £120, without residence.

UNIVERSITY OF GLASGOW.—Four Examiners in Medicine—viz., in Physiology, in Pathology, in Medicine, and Clinical Medicine, and in Surgery and Clinical Surgery. Annual fee to the first and second is £30, and to each of the third and fourth £40.

Births, Marriages, and Deaths.

BIRTHS.

BREWER.—On the 25th ult., at Cairn, Richmond-road, Hackney, the wife of Hampton Brewer, Surgeon, of a son.

BULLOCK—On the 21st ult., at Ladbroke-grove, W., the wife of J. Ernest Bullock, M.D., of a son.

CLAREMONT.—On the 8th ult., at Petersleigh, Elm-grove, Southsea, the wife of Claude C. Claremont, M.D., of a daughter.

DAVIDSON.—On the 23rd ult., at 2, Bon Accord-square, Aberdeen, the wife of James McKenzie Davidson, M.B., C.M., of a son.

LAIDLAW.—On the 24th ult., at Green-lanes, Stoke Newington, N., the wife of Robert Laidlaw, M.B., F.R.C.S. Edin., of a son.

ORMEROD.—On the 23rd ult., at Upper Wimpole-street, the wife of Joseph Arderne Ormerod, M.D.Oxon., F.R.C.P.Lond., of a daughter.

STARLING.—On the 15th ult., at Pier-road, Erith, the wife of J. H. Starling, F.I.C., F.C.S., &c., of a son.

THOM.—On the 21st ult., at Viewfield, Crieff, N.B., the wife of Alex. Thom, M.D.Edin., &c., of a daughter.

TWEEDY.—On the 26th ult., at 100, Harley-street, W., the wife of John Tweedy, F.R.C.S. Eng., of a son.

MARRIAGES.

CAVE—BIRDS.—On the 23rd ult., at St. John's Church, Bath, by the Rev. J. Dunn, Vicar, Edward Cave, M.D.Lond., of Crewkerne, Somerset, to Annie Maria Birds, youngest daughter of the late Rev. David Birds, Vicar of Dudleston, Shropshire.

COURTNEY—FISON.—On the 26th ult., at the Church of St Mary Stoke Ipswich, Guy Budd Courtney, M.A., M.B., Pem. Coll. Cam., of Hereford-square, South Kensington, only surviving son of Edward M. Courtney, Esq., of Collingham-place, S.W., to Alice Gertrude, youngest daughter of the late Joseph Fison, Esq., of Stoke House, Ipswich.

JAMESON—SPURRELL.—On the 14th ult., at St. Germanus', Faulkbourn, Brigade-Surgeon G. W. Jameson, Indian Army, of Chigwell, Essex, to Hannah Shears, eldest daughter of the Rev. F. Spurrell, Rector of Faulkbourn, Essex.

LANGRIDGE—SPENCER.—On the 25th ult., at St. Saviour's, Paddington, George Thomas Langridge, Surgeon-Major, to Helen Maud, only daughter of the late Thornhill Spencer, Esq., of Groome Hall, Barbadoes, W.I.

PHILLIPS—HAAS.—On the 20th ult., at Christ Church, Ealing, by the Rev. R. J. Simpson, M.A., Vicar of St. Peter's, Lee, Edward Phillips, M.B., M.R.C.S.Eng., of Coventry, to Mary Ellen Matilda (Nellie), second daughter of Meno Haas, The Griffins, Ealing.

SANDERSON—COOKE.—On the 26th ult., at St. Paul's Church, Brighton, Robert Sanderson, M.B.Oxon., to Agnes Mary, third daughter of the late Rev. Charles Cooke, of Brighton, and of Averley, Yorkshire.

WALKER—HAINES.—On the 19th ult., at St. Mark's Church, Reigate, Ernest George Agars Walker, M.R.C.S., of Ightham-place, near Sevenoaks, son of the late T. Walker, Esq., of Daneshill, Notts, to Edith Annie, second daughter of the late Henry Haines, M.R.C.S., of Astley, Worcestershire, and Tipton, Staffordshire.

WAYTE—WARD.—On the 20th ult., at St. Giles's Church, Oxford, John Wayte, M.A., M.B., Trin. Coll. Oxon., of Croydon, son of Alline Wayte, of Leamington, to Constance Harriett, eldest daughter of Henry Ward, Norham-gardens, Oxford.

DEATHS.

ARCHIBALD.—On the 25th ult., at St. Andrews, N.B., David Archibald, M.D., aged 75.

BENNETT.—On the 24th ult., James Heaton Bennett, M.D., of Redcar, aged 67.

COMBE.—On the 22nd ult., at Collingham-place, S.W., Matthew Combe, M.D., late Royal Artillery.

GRIFFIN.—On the 24th ult., at Farndon-road, Oxford, John Griffin, M.D. Edin., J.P. for the Borough of Banbury, aged 78.

HILL.—On the 24th ult., suddenly, at his residence, Mecklenburgh-square, Samuel Hill, M.D., in his 59th year.

WALKER.—On the 19th ult., at his residence at Aldbrough, near Darlington, William Henry Walker, M.D., L.R.C.P., M.R.C.S., in his 60th year.

WILKINSON.—On the 23rd ult., at Oakhurst, Hildenborough, suddenly, of apoplexy, Dr. C. Fixott Wilkinson, of Caledonian-road, London

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths

Medical Diary for the ensuing Week.

Monday, March 4

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. M. P. M. Collier: Physiology of the Vascular System.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
MEDICAL SOCIETY OF LONDON.—8 P.M. Annual Meeting for Election of Officers. 8.30 P.M. Mr. Whitehead (Manchester): The Treatment of Confirmed "Catheter Life" by a Permanent Perineal Opening.—Mr. J. H. Morgan: A case of Traumatic Abscess of Motor Area of Brain which recovered after Operation.
SOCIETY OF ARTS.—8 P.M. Mr. Walter Crane: The Decoration and Illustration of Books. (Cantor Lecture.)
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Mr. J. Bland Sutton: On the Relation of Rickets to some forms of Odontomes.—Mr. R. H. Woodhouse: Remarks to open a Discussion on Antiseptic Dental Surgery. Casual communications by Messrs. J. H. Mummery and W. A. Maggs.

Tuesday, March 5.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics same days, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. G. J. Romanes: Before and after Darwin.
PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Handford: Microscopical Changes in Pseudo-hypertrophic Paralysis.—Mr. Sheild: Perforating Ulcer of Foot.—Mr. Lennox Browne: Congenital Growth of Larynx.—Mr. E. N. Fenwick: Sarcoma of Crus Penis.—Mr. T. F. Briscoe: Osteoporosis of Bones of Skull.—Mr. F. S. Eve: Cysts of Retained Genital Gland of Sheep and of Urachus of Pig.—Mr. Gulliver: Syphilitic Ulceration of Trachea and Large Bronchi. Card Specimens will be shown by Mr. F. S. Eve, Dr. White, Dr. Hadden, Mr. Shattock, and Dr. Mott.

Wednesday, March 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M. Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical visits on Wednesday and Saturday at 9.15 A.M.
ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—5 P.M. Mr. Bertram Windle: (1) Osseous Abnormalities and a Photograph of a Bifid Nose; (2) On the Origin of Double Monsters.—Mr. Alex. Macalister: A Scheme of Collective Anatomical Investigation, also a Note on an Amendment of the Anatomy Act.—Mr. G. B. Howes: An Additional Note on the Intra-narial Epiglottis.—Mr. R. L. Bowles: On the Anatomy and Development of the Palate and Epiglottis in Animals.—Mr. Gordon Brodie: Some Observations on the Ligaments about the Shoulder.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. M. P. M Collier: Physiology of the Vascular System.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown. The President (Dr. Galabin) will deliver the Inaugural Address. Dr. Stephenson: On the Relation between Chlorosis and Menstruation.—Dr. Champneys: Case of Cæsarian Section for Contracted Pelvis.
SOCIETY OF ARTS.—8 P.M. Prof. Silvanus P. Thompson: Arc Lamps and their Mechanism.

Thursday, March 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. Sidney Martin: The Venom of Serpents and Allied Poisons.

Friday, March 8.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. M. P. M. Collier: Physiology of the Vascular System.
SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Dr. Louis Parkes: The Artisans' and Labourers' Dwellings Acts (Torrens).—Dr. Henry Tomkins: Notes on Disinfecting Apparatus.
SOCIETY OF ARTS.—8 P.M. Prof. Robert Wallace: The Present Condition and the Prospects of Indian Agriculture.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Whipham: Tubercular Disease of Larynx, &c., Absence of any Similar Disease of Lung.—Mr. Bland Sutton: Case of Erectile Tumour of the Male Breast.—Dr. Payne: Case of Molluscum Fibrosum with Nervous Symptoms.—Dr. Burney Yeo: Case of Quinine Rash; Personal Experiences.
ROYAL INSTITUTION.—9 P.M. Prof. Oliver Lodge: The Discharge of a Leyden Jar.

Saturday, March 9.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Rt. Hon. Lord Rayleigh: Experimental Optics (Polarisation; Wave Theory).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, February 28th, 1889.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 22	30·17	N.	38	35	72	44	33	·02	Cloudy
,, 23	30·17	N.E.	31	..	73	39	30	..	Hazy
,, 24	30·21	N.E.	35	33	..	40	31	..	Overcast
,, 25	30·03	N.	35	34	50	40	33	..	Snowing
,, 26	29·81	N.E.	32	..	59	39	30	..	Cloudy
,, 27	29·61	N.E.	35	33	46	39	31	..	Overcast
,, 28	29·69	N.E.	32	..	49	35	31	·05	Snowing

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

IMPULSE OF COUGHING FELT IN THE FŒTAL CORD.

Dr. G. B. Flux writes:—"At a confinement of a primipara, aged twenty-five, immediately after the child was born the woman was seized with violent coughing. At each cough the impulse was distinctly felt along the cord remaining attached to the placenta. The expansile force was sufficient to separate the thumb and finger while firmly compressing it. After about thirty minutes the impulse ceased to be felt, and within ten minutes more the placenta was expelled and the coughing ceased."

Dr. G. M. Gould (Philadelphia).—We will endeavour to supply an answer in our next.

Dr. Dupré's letter is unavoidably held over until next week.

CIRCUMDUCTION IN ATROPHY OF THE DELTOID.

To the Editors of THE LANCET.

SIRS,—Without wishing to detract in the slightest degree from the value of Mr. Harrison's interesting communication anent atrophy of the deltoid and its treatment by circumduction, I would venture to remark that the description of his last two cases in no way adds to the value of his contribution.

In the first place, few I think will agree with him when he states that in the case of Mr. W. R——, "atrophy of the deltoid would doubtless have supervened." That atrophy might have been the result is possible, but the chances are much greater that nothing nearly so serious would have taken place. How often does it occur that a person receives a blow on the shoulder causing stiffness and considerable pain, which, treated by rest and some anodyne application, completely recovers in the course of a few days. Considering the number of occasions in which the shoulder receives concussion, I believe that but a very small minority end in so serious a condition as atrophy of the deltoid.

Again, if the hypothesis which he puts forward—strangulation of the nerve in the quadrilateral space by the muscles—be correct, would circumduction or any other forcible movement of the limb, so soon after this supposed contusion of the nerve has taken place, be applicable? I take it, if the bony structures occupied their proper relative positions, as Mr. Harrison states they did, that as soon, or very soon after the disturbing force had ceased acting, the muscles credited with compressing the nerve would resume their normal state of tension. If this be so, I cannot see that circumduction can in any sense be regarded as a suitable remedial measure; rather, I should say, treat the nerve as we would treat any other tissue which has been subjected to violence—give it rest, so that it may recover.

I am, Sirs, yours faithfully,

Blyth, Feb. 16th, 1889. JAMES MASON, M.D., L.R.C.P.Ed., &c.

THE RUSSIAN SOLDIER'S DIET.

THE want of variation in the diet of the troops was one of the topics discussed during the recent Medical Congress at St. Petersburg. Dr. Galin read a paper describing the satisfactory results obtained in one regiment by the variation of the diet, though the sum allowed—viz., five kopecks and a half per head per diem (under a penny farthing)—was not exceeded. It seems to be supposed by the authorities that the uniformity of diet ensures proper nutriment; but in reality it is not found to be the case, some variation assisting the men's appetites and causing them to gain in weight under circumstances when with the regulation diet they lose weight. The ration allowed consists, it seems, of 3lb. of black bread and 40 solotniks (5¼oz.) of groats—a system of diet which has been, it is said, in vogue for the last 166 years. One of the speakers remarked that the men rarely ate the bread ration; so that if that were reduced by 1lb. a saving would be effected which would enable some other articles of food to be bought.

F. C. B.—We should be inclined to think the consciousness of pain in the lower invertebrates, if present at all, is exceedingly low, though sufficient perhaps to preserve their bodies from direct injury. Many of the ophiuridæ amongst echinodermata, and even many crustacea, are capable of self-dismemberment, which we can therefore hardly regard as a painful process. Such movements, as those of the halves of a divided worm, may fairly be regarded as reflex, since little difference can be perceived in the character of such movements in the tail and head end; and we know from cases of division of the cord in the higher animals and man that violent reflex movements can be excited in the posterior limbs without the slightest consciousness of pain. Even in man immense differences in regard to painful impressions are to be observed, as any dentist or ophthalmic surgeon—both of whom have to deal with the most sensitive nerves in the body—is well aware.

L. S.—A convenient manual for the medical undergraduate who wishes a summary of the rise and progress of the healing art is the "Histoire de la Médecine et des Médecins à travers les Ages, par le Dr. P. Dignat" (Paris, Henri Laurens, 1888), in one 12mo volume. It will be found fairly accurate and eminently readable.

Mrs. C. Olive.—We do not undertake analyses in the way suggested.

FREE EDUCATION AND FREE MEDICAL AID.

To the Editors of THE LANCET.

SIRS,—Education and medical aid should be free to all, and paid for by a rate or tax. Many when requiring medical aid cannot afford to pay for it, and therefore either try to do without it or send for it when it is perhaps too late, or become semi-pauperised by having to apply to some medical charity. Patients after a long illness often find the medical bill very difficult to meet, and often become demoralised thereby. No doubt clubs and other friendly societies ameliorate these conditions a little, but they are very unsatisfactory and unremunerative to medical men. Were hospitals and infirmaries supported by the State, and not as at present by the contributions of the charitable, their medical officers could accept something like a fair remuneration for the time and energies expended in them without any loss of dignity. The public will never obtain the full benefits of medical science until the State organises a medical service somewhat like the Civil Service, examining those seeking admission, and, if found eligible, appointing them first as assistants, then after a time to a district or division, and by a competitive examination, or by the manifestation of special talents, to be a supervising consulting physician, surgeon, oculist, or aurist and medical examiner for the State. Did such an arrangement exist, the supply and demand for medical men would be better regulated, and excessive competition avoided. Medical men would have their work in a limited area, and could give more attention to their patients, instead of, as at present, expending a great deal of time and energy, getting over great distances driving and walking to visit patients. District medical officers would use their very best endeavours to keep their districts free from disease, and would be very efficient sanitary inspectors, and civilians, like their military *confrères*, would have a record of all their illnesses and the treatment adopted, which would be of great benefit to them in removing from one district to another.

I am, Sirs, yours very truly,

February, 1889. SOCIAL REFORMER.

ACONITE ROOT.

To the Editors of THE LANCET.

SIRS,—Your notice of my paper on Aconite Root might lead your readers to suppose that I differed materially from the British Pharmacopœia as to the time for collecting the roots. This is not really so. For although I consider that the autumn would be more convenient than the winter for the collector to gather the roots, yet the activity will not vary much so long as the roots are collected "before the leaves have appeared," as directed in the Pharmacopœia. The discrepancy in that work which I pointed out is that the roots are described as being crowned with the remains of the base of the stem, notwithstanding it is ordered that the roots should be collected before the appearance of the stem.

I am, Sirs, yours faithfully,

Oxford-street, W., Feb. 26th, 1889. P. W. SQUIRE.

THE PROTECTION OF THE MEDICAL PROFESSION.

WE are inundated with communications on this subject, and cannot possibly find room for them all. *Alpha* agrees with "J. H." (Feb. 16th, p. 353), and urges a central association with local branches all over the kingdom where medical men could meet and discuss matters of common interest, and learn to know each other more and suspect each other less. *Mr. L. Nicholls* gives particulars of a case where the daughter of a well-to-do farmer was admitted into a hospital with chorea, while the daughter of a pauper was treated at home. *Ne plus ultra* enlarges on two crying evils—abuse of the out-patient department of hospitals and infirmaries throughout the country, and the formation of medical aid associations not limited to members from the *bond-fide* working class. He expresses the opinion, after many years' experience as hospital surgeon and as a club and parish medical officer, that the out-patient department is not a charity, is not required for the benefit of the sick poor and working classes, and that it is used largely by those who do not need it. He mentions an instance of a small town and district with 6000 inhabitants where one of the associations has been formed and boasts of having captured nearly half the population after much canvassing. *An Old Correspondent*, who has bought a nucleus, finds an unheard-of number of charities, a monster club worked by one or two, Church sick charities, so-called nurses attending midwifery cases at 15*s.* each. On every side the profession is robbed. Chemists do the most of the prescribing over the counter. He asks, Is the profession ever going to unite? *A. H. B.* goes into the disordered state of the profession in a somewhat medical way, giving symptoms, causes, and treatment. Among the causes he assigns severe competition and degrading rivalry. Some causes are outside the profession, some inside. Among the external are abuse of charity, quackery, fraud, public ignorance; among the internal are demoralising and indiscriminate giving of "hurriedly forced advice," depreciation of professional brethren, and inordinate advertising. The primary cause is an absence of *esprit de corps* or spirit of self-respect in our social element. For cure he advises that the Medical Council, or some other body, should be a central committee of operation to arrange and enforce a defensive and aggressive policy; that we should discourage rivalry, and encourage "emulating co-operation and competition." *J. H. T.* remarks: "Having agreed to combine, the sooner we do so the better. With regard to the method of combination, I beg to suggest that a branch of the Medical Protection Society be formed in each large town, under the presidency of some well-known physician or surgeon. The formation of local centres would probably be very much facilitated if gentlemen interested would bring the question before the various medical societies for discussion."

Dr. H. D. Buss (St. Raphael).—The announcement appeared in THE LANCET of Feb. 2nd, p. 241.

Senex.—It would be better to apply to the author of the paper for the information desired.

Dr. Mott.—The paper will be published, if possible next week.

METHOD OF REMOVING A TIGHT RING.

To the Editors of THE LANCET.

SIRS,—With reference to two letters in your issues of Jan. 5th and 12th about removing rings when the finger has swollen, I beg to give the following way of applying what is known as the "string method."

Use the finest silk or thread consistent with strength (ordinary housewife thread is strong enough). Pass the end between the finger and the ring, keeping the spool or unlimited end at the side next the finger-tip. Then wind downwards towards the tip of the finger for about a quarter of an inch; then wind off from above by the short end about half this amount. Proceed alternately winding on and off, always leaving about one-eighth of an inch in breadth wound beneath the ring. When the knuckle is passed the ring comes off easily. Oil or soap the thread well, and push up the ring before commencing to wind. This method will, I believe, remove any ring.

I am, Sirs, yours truly,

R. R. H. MOORE,
Surgeon, Medical Staff.

Purandhar, Bombay Presidency, Jan. 30th, 1889.

MEDICAL ADVERTISERS.

Disgusted sends us notice of several specimens of medical bills, posters, advertisements, and testimonials, and calls on the Medical Council or the bodies discredited by such unprofessional conduct on the part of their associates to interfere. We subjoin a very bad specimen, from the *Sunday Times*, and direct the attention of the Edinburgh College of Physicians to it.

"Dr. Lloyd Whitmarsh's cure for Gout, Rheumatism, Sciatica, Neuralgia, and Lumbago. A never-failing remedy of 25 years' trial. Sold in bottles (with diet table), at 2*s.* 9*d.*, 4*s.* 6*d.*, 11*s.*, to be obtained of all chemists, and 21, Thurloe-place, S.W."

E. R.—The information is given very fully in our **Students' Number**, published on Sept. 8th last.

SACCHARIN.

Dr. Attfield asks us to state that his paper on Saccharin was issued without the knowledge and sanction of the Pharmacopœia Committee of the General Medical Council.

X.—If the collusion between qualified and unqualified men is such as to leave the unqualified assistants in exclusive charge of cases or of branch practices, it is contrary to the regulations of the Medical Council. If brought formally before them and proved, it would expose the qualified principal to removal from the Register.

LETTSOMIAN LECTURES.

To the Editors of THE LANCET.

SIRS,—I have been greatly interested—as I have no doubt the profession at large has—by reading Dr. Gowers' Lettsomian Lectures, but must say felt disappointed at the remarks, of his extensive experience, as to treatment. I have under my care a man about thirty, who has for nearly three years taken a drachm of iodide of potassium daily; if he does not, within a few days, always within a week, he gets some symptom which greatly alarms him—such as ptosis (single or double), thickness of speech, headache, &c. Now, according to Dr. Gowers, my treatment is open to criticism. But is not the result verified by the treatment? Or am I slowly sending him to a premature grave? If my treatment is wrong or unscientific, I should certainly like to do what is right, as also to know how long he is likely to continue taking it. For ever?

I am, Sirs, yours truly,

February, 1889. PHYSICIAN.

Vaccinia.—Our correspondent's letter leads us to conclude that the results described were due to a constitutional defect in the children. We see no reason why a charge for attendance should not be made.

BAMBOO STRETCHERS.

To the Editors of THE LANCET.

SIRS,—Having had a present made of some bamboo canes, I have had four stretchers made of them. They are so light and strong and handy that I think it right to call the attention of those using stretchers to their advantages. They are especially good for civilian use, the stretcher weighing under 10 lb., and with canvas complete 16 lb., a serious consideration in carrying a patient a distance, the regulation stretcher being half the weight of a man. They might even be used on the battlefield. Two bamboos and a blanket would be a light weight for carriage. I have had mine made with legs, and can give diagram and directions to any who wish to make them.

I am, Sirs, yours faithfully,

ELEAZAR SHERWOOD, M.D.,
Late Med. Officer to 1st E. York Artillery Volunteers.

Whitby, Feb. 26th, 1889.

J. W. D.—Jago's Chemistry of Wheat, Flour, and Bread, published by Wm. Jago, 138, Springfield-road, Brighton (1886), gives some valuable information.

Yorkshire.—The question has been answered times without number. Possessors of a University degree alone are in strictness entitled to style themselves doctors.

ENGRAVING OF SIR JER. FITZPATRICK, M.D.

To the Editors of THE LANCET.

SIRS,—I have met with an engraving of "Sir Jer. Fitzpatrick, M.D., Inspector-Genl. of Health to His Majesty's Land Forces," by W. Barnard, painted by S. Drummond in 1801. I should be glad if any of your correspondents could give me any information respecting it.

I am, Sirs, yours faithfully,

Mansfield, Feb. 15th, 1889. G. R. GODFREY.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Bland Sutton, London; Professor Annandale, Edinburgh; Dr. Sedgwick Saunders, London; Professor Morgan, Manchester; Dr. Matthews Duncan, London; Sir Saul Samuel; Professor d'Odiardi; Mr. Lawson Tait, Birmingham; Dr. Dagleish, Newcastle-on-Tyne; Dr. Attfield, London; Mr. Haslam, Birmingham; Dr. Savage, London; Mr. Morris, London; Professor Crookshank, London; Dr. Handford, Nottingham; Dr. Clouston, Edinburgh; Mr. Hamilton Cartwright, London; Surgeon G. H. Darwin, Didsbury; Mr. H. H. Taylor, London; Mr. N. Hannah, Ashton-in-Makerfield; Dr. E. Sherwood; Mr. Somerville Smith, Sittingbourne; Mr. P. W. Squire, London; Messrs. Longmans and Co., London; Rev. F. Lawrence, London; Messrs. Middleman and Son, Edinburgh; Dr. W. H. White, London; Messrs. Pryce and Boobbyer, Nottingham; Dr. Wolfe, Glasgow; Mr. Crespi; Dr. Nathan Raw, Milton; Mr. Karkeek, Torquay; Dr. R. W. Jones, Mountain Ash; Mr. Mayhew, Darlington; Mr. R. Hagyard, Hull; Mr. Berkeley Hill, London; Dr. A. Dupré, London; Dr. F. W. Mott; Mr. Lucas Huntingdon; Dr. J. C. H. Peacocke, Karachi; Dr. Dakin; Dr. Gould, Philadelphia; Mr. Biddle, Kingston; Messrs. Kilner; Mr. McAlister, London; Mr. A. Haviland, Douglas; Dr. Buss, St. Raphael; Dr. J. E. Sinclair, London; Dr. Wallace, Colchester; Mr. F. Page, Newcastle-on-Tyne; Mr. Walter, Manchester; Mr. Brennan, Slingsby; Mr. T. G. Read, London; Dr Sharp, Rugby; Mr. Symonds, London; Mr. E. H. Fenwick, London; Dr. Macleod, Edinburgh; Mrs. Douglas, Gaulock; Mr. E. G. Carter, Leeds; Mr. Gourley, West Hartlepool; Dr. Rorie, Dundee; Dr. Macleod, Slateford; Mr. Grant, Dundee; Mr. Davis, Wolverhampton; Miss Manning, Towcester; Mr. Humphrey, Romney Marsh; Dr. Taylor, U.S.A.; Mr. Aveling, London; Dr. P. Yates, Bolton; D. Alderson; G. C. C.; E. R.; M.R.C.S.; A Fifteen Years' Subscriber; M.D., St. Leonards; The Director-General, N.M.S.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. John Carter, London; Mr. Crickmay, Framlingham; Messrs. Wyllie and Son, Aberdeen; Mr. Ker, Sligo; Mr. Berthe, Jersey; Messrs. Keith and Co., Edinburgh; Mr. Davidson, Atherstone; Messrs. Giles and Co., London; Mr. Moring, London; Mr. Leash, London; Messrs. Sang and Barker, London; Dr. Curme, Blandford; Mr. Sewill, London; Dr. Drysdale, London; Mr. Cornish, Manchester; Mrs. White, India; Mr. Gilmour, Gorleston; Mr. Twyford, Hanley; Mr. Darby, Antrim; Dr. Adams, Warrington; Mr. Maynard, Erith; Mr. Lee, Leeds; Mr. Thomas, Welshpool; Dr. Windle, Halifax; Mr. Stewart, Edinburgh; Mr. Shattock, Devon; Mr. Webb, Eston; Mr. Walker, Darlington; Mr. Douglas, Samana; Mr. Nicholls, Suffolk; Mr. Cave, Brighton; Mr. Crossfield, Dartmouth; Mr. Heywood, Manchester; Mr. Wray, Notts; Mr. Lloyd, London; Mr. Hannan, Leeds; Primus, London; M.D., Manchester; X. Y. Z., London; C. S. H., London; Delta, London; General Apothecaries' Co., London; Middlesbrough Corporation; Virtus, London; Yorkshire; A. R., London; Glasgow Western Infirmary; Chirurgus, London; H. A., Sussex; Yorkshire College, Leeds; J. H., London; Scriptorius, London; Jeyes' Sanitary Compounds Co.; Frosterly, London; M.R.C.S., Hereford; Glasgow Royal Infirmary; M., London; School of Massage, London; County Asylum, Whittingham; Mrs. J., York; Medicus, Edinburgh; The Coppice, Notts; Medicus, York; M. M., London; P., York; Meno Haas, Ealing; J. R., Exeter; Graduate, London; Fez; Osteotribe, London; A. D. C., London; Otium, London; Tamil, London; Rooms, London; Medicus, Devon; S. H., London; Alpha, Manchester.

Bristol Evening News, Surrey Advertiser, Consett Chronicle, Reading Mercury, Eastern Daily Express, Herald and Weekly Free Press, Mining Journal, Hertfordshire Mercury, La Cecilia Medica, &c., have been received.

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